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It was their last resource

THE "NORTH POLE" SERIES.

**CAST AWAY AT
THE NORTH POLE**

BY

EDWIN JAMES HOUSTON, Ph.D.

Member of the Academy of Natural Sciences, American Philosophical Society; Past President of the American Institute of Electrical Engineers; author of "Electricity in Every Day Life," and many popular scientific works; President of the Boys' Brotherhood of Philadelphia and author of numerous stories for boys.

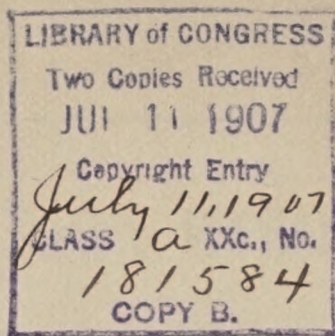


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THE NORTH POLE SERIES of Books for Boys, by Prof. Edwin J. Houston, Ph.D., giving boys not only vivid and thrilling stories of adventure, but in narrating for them in a most attractive manner fascinating and accurate accounts of the most recent scientific knowledge in which all boys are more interested than in any other study or pastime. The titles of the three volumes are:

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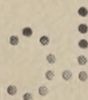
"THE DISCOVERY OF THE NORTH POLE,"

"CAST AWAY AT THE NORTH POLE."

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RESPECTFULLY DEDICATED TO HIS FRIEND

MR. AMOS BONSTALL

OF PHILADELPHIA

THE ONLY SURVIVING MEMBER OF THE
KANE POLAR EXPEDITION OF 1854-5.

MY DEAR DR. HOUSTON:

I am delighted that you have completed your "trio" of books for boys, and I feel highly honored by your proposition to dedicate them to me as the last survivor of the Kane Arctic Expedition.

The manuscript which I have read assures me that your stories will be popular and instructive to the rising generation of American boys, since they are attractively told, and accurately express some of the phenomena of the regions of the Far North.

Your friend,

(Signed)

AMOS BONSTALL.

PREFACE.

In "Cast Away at the North Pole" the author has endeavored to show how possible it is for intelligent boys to live comfortably for awhile on an uninhabited island in the far North, although provided with very little besides the clothes they have on.

The story has been so told as to impart information of the peculiarities of life in the far North.

While the author has assumed the existence of a warmer climate in the regions surrounding the North Pole than is generally attributed to it, yet he has endeavored to tell a story that will contain considerable reliable information for its readers.

E. J. H.

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CHARACTERS.

GEORGE I. HENDERSON, of Chicago, Multi-Millionaire and Financial Backer of the Henderson-Kransen North Polar Expedition.

PROFESSOR LARS KRANSEN, Commander of the Expedition.

DR. HORATIO HANSCOMBE, Chief Physician.

CAPTAIN SILAS JONES, of New Bedford, Mass., Chief Navigator.

ANDREE KRANSEN, Nephew of Professor Kransen.

ERIC HANSCOMBE, Nephew of Dr. Hanscombe.

GIDEON BROWN, Chief Reporter for Henderson's Newspapers.

CHARLES THOMAS, Chief Electrician.

ANDERS JANSEN, Chief Mechanician.

DR. HENRY STONE, Assistant Physician of the "Explorer."

HJALMAR GORSEN, Boatswain.

GEORGE HODGES, Electrician at Balloon Station No. 2.

JAMES ALBERTSON, Assistant Electrician at Balloon Station No. 2.

JOE, an Eskimo, Chief Sledge Driver.

KES-SU, A-WAH-TOK and MA-KIP-SU, Eskimos.

CAPTAIN HENRY NORTHROP, Commander of the Relief Ship "Rescue."

DR. HENRY WILLSON, formerly Chief Physician of Relief Ship "Rescue."

DR. SHALLCROSS, Chief Physician of the "Rescue."

CAESAR, Cook of the "Explorer."

COOLY, Steward of "Rescue."

CAST AWAY AT THE NORTH POLE

CHAPTER I

BALLOON STATION NUMBER TWO

“**I**S the balloon tight? Will it hold gas?”
“I think it is all right, but it must be inflated before we can be sure. If we then find any leaks they will be small and can be stopped by a fresh coating of rubber varnish.”

“Then,” said the first speaker, “I will send a party to establish a balloon station on the headland sixty miles west of our camp. We will equip the balloon with wireless telegraphic apparatus, and as usual, place in its basket supplies of food and other necessary articles.”

The speakers were two men. The place was the principal room of a balloon station on a headland near the Arctic Ocean. Besides these two there were several other men and two boys in the room. One of the men had been carefully examining a large empty balloon of the ordinary type, which had been spread out on a wooden table. To one unfamiliar with the handling of a balloon, it might have appeared that the balloon lay in a confused mass on the table, but after seeing the skilful manner in which seam after seam, was carefully examined from top to bottom, it was evident that the confusion was only apparent, and that the man directing the examination thoroughly understood his business. It was on the completion of this examination that the first speaker inquired as to its condition. When he had received this satisfactory report, he turned to one of the two boys, a slightly built lad of not quite seventeen years, and said:

“Eric, as soon as the buildings are completed and the balloon is in place and provided with its wireless apparatus and stores, I wish you and Andree to make an examination of the surrounding country, and give me a report of the same on your return. I shall expect both of you to return with the dog team after it has brought its second load of material. We will call this station, Balloon Station No. 2, in order to distinguish it from the station here, which will now be known as Balloon Station No. 1.”

The above conversation took place towards the middle of a certain day in July. The place was a point on the headland on the northeastern shore of Grant Land, North America, in lat. 88° N., alongside the wireless telegraphic station at Camp Henderson, the winter headquarters of the Henderson-Kransen North Polar Expedition. The first speaker was Commander Kransen. The one to whom he began talking was An-

ders Jannsen, chief mechanic of the expedition to whom the charge of the balloons had been assigned. The two boys were our friends, Andree and Eric, nephews of Prof. Kransen and Dr. Hanscombe, chief physician of the expedition. There were also present in the room, Capt. Jones, chief navigator of the expedition, and several of the crew.

For the sake of those who have not read the other two volumes of the North Pole Series, "The Search for the North Pole," and "The Discovery of the North Pole," it may be said that the Henderson-Kransen North Polar Expedition had sailed from New York City more than a year ago, in a wooden vessel especially built for the purpose, with Prof. Lars Kransen as Commander. The name of the vessel was the "The Explorer." The expenses of the Expedition were met by a Chicago multi-millionaire, Mr. George I. Henderson. The ob-

ject of the expedition was not only to reach the North Pole, but especially to provide exclusive news for Henderson's newspapers, published in New York, Philadelphia, Boston, Chicago, San Francisco, and several other large cities.

Under the skilful navigation of Captain Jones, the Expedition had reached its principal station on the northeastern coast of Grant Land. The Expedition has now been in Grant Land for nearly one year. "The Explorer" lay safely anchored in an excellent land-locked harbor near the substantial buildings that constituted their permanent winter headquarters at Camp Henderson. The Expedition had been very successful and had discovered two large islands, one named Hanscombe Island, after Dr. Hanscombe, the chief physician of the Expedition, and the other named Kransen Island, near the centre of which the North Pole had been located.

Both of these islands had been taken possession of in the name of the United States of America. Some stores had been left on Kransen Island in a lava cave, and a permanent station built on Hanscombe Island. Here a party, consisting, besides some of the crew, of an electrician and his assistant, two scientific observers, for the purpose of making records of the direction and velocity of the wind, the pressure of the atmosphere, the direction of ocean currents, as well as a careful study of the natural products of the island, had been left under the command of Dr. Stone, who had left New York as an assistant physician of the Expedition. In order to keep this station in communication with Camp Henderson, and New York City, it had been equipped with a wireless telegraphic station, the apparatus had been tuned to receive and transmit messages both to Camp Henderson and New York City.

It may be a matter of surprise that Com-

mander Kransen should send a lad so young as Eric to attend to the wireless telegraphic apparatus. But those who have read the books before referred to will recall the fact that the wireless telegraphic balloon apparatus was an invention of Eric's, that, moreover, the lad was so familiar with both the construction and operation of the Marconi wireless telegraphic apparatus that he was sometimes left in charge of the station at Camp Henderson. Eric had the advantage of not only inheriting marked electrical abilities from his father, but also in having Prof. Lars Kransen, Commander of the Expedition, as a teacher, for Prof. Kransen was a skilled physicist, and had given considerable attention to wireless apparatus.

It may be interesting here to say that Andree and Eric, the two youngest members of the Henderson-Kransen North Polar Expedition, had first reached the North Pole in a stationary balloon equipped with wire-

less telegraphic apparatus. This balloon had been blown away from its temporary moorings at Hanscombe Island during a severe storm that had suddenly reached the island. The two boys, at the request of Prof. Kransen, had climbed into the balloon in order to open the valve at the top, and so permit the escape of some of the gas. In this manner the boys had safely reached Kransen Island, or the Land of the North Pole, where they were afterwards joined by Kransen, Hanscombe, and Gideon Brown, the chief reporter of the Expedition, and Mr. Jannsen, the chief mechanician.

After a brief examination of Kransen Island the balloon that had brought the boys to the island was emptied of its gas, and carefully packed with its wireless telegraphic apparatus in a cool part of one of the lava caves that had been discovered by the boys. There had also been left in this cave various stores, consisting of food sup-

plies, ammunition, and various articles, for which they were unable to find room on the dirigible balloon. It was the intention of Kransen to erect winter quarters and a wireless telegraphic station on Kransen Island some time before the setting in of the second winter; for, according to secret instructions sent him in a sealed letter, Henderson had requested reports as to the possibility of commercially developing the lands of the far north, not only as regards their mineral deposits, but also by breeding some of the more valuable land and water animals.

When the conversation referred to at the beginning of the chapter was completed, Kransen turned to Dr. Hanscombe and began to explain to him the advantages that would be ensured by the establishment of Balloon Station No. 2, since this station would place Camp Henderson in early communication with that distant point of Grant Land, that Kransen, in accordance with

the wishes of Henderson, intended to examine thoroughly and explore as regards the mineral, vegetable, and animal products.

While this conversation was going on, the boatswain of the Expedition, Hjalmar Gorgsen, came into the balloon station and said in an excited manner:

“Commander Kransen, we have arrested Dr. Willson, while in company with some of the strange Eskimos who are coming every day to Camp Henderson from the south.”

Dr. Willson had been chief physician of the “Rescue,” the relief ship sent by Henderson from New York City with supplies for the erection of buildings on Hanscombe Island, as well as the establishment of permanent headquarters on Kransen Island. When Andree and Eric had aided in taking Prof. Kransen, while in an unconscious condition, from a cake of floating ice to the relief ship, “Rescue,” Dr. Willson had expressed it as his opinion that Kransen was

dead, and had declared his intention of making an autopsy, or post-mortem examination of the body, while it was still warm. Eric had prevented this, and by the application of the Icard Test, had proved that life was still present, and had thus saved the life of the Commander of the Expedition.

Instead of acknowledging his mistake, as a sensible man would have done, Dr. Willson had acted very foolishly, and on several occasions barely escaped severe handling on the part of the crew of the "Explorer," whose Commander, Captain, and Chief Physician he was ridiculing and criticizing. Willson was therefore ordered by his Commander, Captain Northrop, of the "Rescue," to remain on that vessel and to return with them to New York City. He escaped, however, from the vessel, and not being found, the "Rescue" had gone to New York without him.

It was now three weeks since the "Res-

cue" had left Camp Henderson. Although repeated searches had been made for Willson, he had not then been found. When, therefore, Gorgsen came into the balloon station and said to Kransen:

"We have arrested Dr. Willson," there was a stir in the room, and Kransen said:

"Bring the man in here, Gorgsen."

Gorgsen left the room, and in a few minutes returned with two men, who led in Dr. Willson.

The Doctor who was very angry inquired:

"Commander Kransen, by what right have these men arrested me? I protest against it as a high-handed outrage."

"Dr. Willson," replied Kransen, "you were ordered by your superior officer, Captain Northrop, Commander of the 'Rescue,' to return in that vessel to New York City, but you failed to obey his order. Now, Doctor, I am ready for my part to forget your unprofessional conduct toward me. You

must recognize that you are in a part of the world where it will be impossible for you to live during the approaching winter without proper food and shelter until another vessel arrives. If, however, you agree to obey the rules and regulations of our camp, I will provide you with food and shelter until you can safely leave here. Are you ready to make this promise?"

"I will do nothing of the kind," said Willson, in a still angrier tone. "I wish to have nothing to do with you or your Expedition."

It was indeed with no little difficulty that Prof. Kransen concealed his indignation at the discourteous manner in which his overtures for peace were received. Still he managed to keep his temper, and quietly continued:

"How do you expect to be able to remain here during the approaching winter, Dr. Willson?"

“That is none of your business,” replied the Doctor, in a still angrier tone.

“Then,” said Kransen, “both for your own good and for the good of the camp, I shall be obliged to detain you until I can send you safely away from this part of the world.”

“By what right do you dare to restrain my liberty?” inquired Dr. Willson, now nearly wild with rage.

Kransen made no remark to this inquiry, but Dr. Hanscombe turned to Willson and said:

“Do you not see that you are acting very foolishly, as well as unprofessionally? You can’t possibly exist in these high northern latitudes without shelter or food. You are offered both of these at Camp Henderson, but if you remain it will be necessary for you to agree to obey the rules and regulations of the camp. If you refuse to do this, Prof. Kransen must either turn you loose or

restrain your liberty while you remain with us."

"Who are you, sir, who presumes to speak to me as you have done?"

"I am Dr. Horatio Hanscombe, Chief Physician of the Henderson-Kransen North Polar Expedition."

"Oh, I see," said Willson, in a contemptuous tone. "You are the uncle of that little snip," pointing to Eric. "I am not surprised that you are so ready to meddle with other people's business."

"Capt. Jones," said Kransen, "take this fellow away. Lock him up in one of the rooms in our quarters. See that he is properly fed, but do not let him escape or communicate with the Eskimos."

"Gorgsen, attend to this," said the Captain turning to the boatswain.

"Aye, aye, sir" replied Gorgsen, taking away the man.

"I will be revenged on you for this

treatment," said Willson, now almost crazy with anger, "and you, too," he said, turning to Eric; "I'll teach you how dangerous it is to meddle with my business."

When Willson had been removed by Hjalmar and his men, Kransen turned to Hanscombe and said:

"Hanscombe, is that man crazy or is he only a great fool?"

"He is only a fool, Kransen," was the reply. "But he is a dangerous man, and would give us much trouble in camp were he permitted to remain in it, free to go where he wished."

"Commander Kransen," said Capt. Jones, "you'd better try to learn what the man has been doing with himself since he cut and ran from the 'Rescue.'"

"I will," was the reply. "Eric, go after Gorgsen, and tell him to come here as soon as he has put Willson in a safe place."

When Gorgsen returned, about fifteen

minutes afterward, he informed Kransen that Willson had been discovered in one of the houses of the strange Eskimos, who had recently come to Camp Henderson, and had erected snow houses about half a mile to the west of the camp; that he had been living with these men since leaving the "Rescue."

While Gorgsen was talking, Eric came into the room with an Eskimo named A-wah'-tok, and Heinrich Krandemann, a Dane, who had been taken with the Expedition as a fisherman and interpreter of Eskimo. A-wah'-tok was one of the Eskimos who had visited the camp shortly after the erection of the headquarter buildings. He was a good natured and honest man, who had been engaged by Kransen to return to the camp the next spring to aid in work on the Expedition.

As the three came into the room Eric said:
"Prof. Kransen, Heinrich tells me a story

about Dr. Willson and the Eskimos with whom he has been living that I think you ought to hear."

"What is it, Heinrich?" asked Kransen, turning to the man.

"Something A-wah'-tok told me," was the reply.

"All right," said Kransen, "tell A-wah'-tok I want to know what he heard the strange Eskimos say about Dr. Willson."

"He say," replied A-wah'-tok, "they have great white wizard at their camp. That this wizard came on ship that sailed away three weeks ago. He says he left ship to look after poor Eskimos. That the white men in this camp are very bad men. That when their ship leaves here they will steal away the Eskimos and take them many miles from here and sell them for slaves. He says if they will do what he tells them he will show them how to be revenged on the white people."

“Forewarned is forearmed,” said Kransen, when A-wah'-tok had told them his story, “we will keep a sharp lookout on the Eskimos, and see that Dr. Willson does not escape.”

In a few days a sledging party was sent to the site selected for Balloon Station No. 2. Andree and Eric accompanied the party, taking with them their Newfoundland dogs, Hector and Snowflake. These dogs were two splendid animals, belonging to the two boys, and had become greatly attached to their masters. Hector, a male, with jet black fur or hair, belonged to Andree, while Snowflake, a female, named on account of the pure white color of her hair, which, with the exception of a small black spot on the tip of her tail, was almost as white as the driven snow, was the property of Eric. These dogs were exceedingly intelligent and appeared to understand much of what the boys said to them.

It was fully one week before the balloon was inflated, and firmly attached to the ground, at the Balloon Station No. 2. The wireless apparatus had been placed on the balloon and put in good working condition, a number of trial despatches to Camp Henderson having been sent and answers received from the same. The building had been erected as far as the material would permit, and the dog teams had been sent back to Camp Henderson for the things necessary for its completion.

As Andree and Eric had been requested to make an exploration of the western portion of Grant Land, their Newfoundland dogs had been permitted to remain with them.

It was now two days after the dog teams had left Balloon Station No. 2 for Camp Henderson. Eric and Andree had left the station, accompanied by Hector and Snowflake, on an exploring tour early one morn-

ing, and did not expect to return for several days. Though young, the lads were capable of safely making such explorations alone, so that it was taken as a matter of course that they might not return to camp for the next two or three days.

About this time something occurred at Camp Henderson that created no little anxiety on the part of its officers, and indeed, before long led to very serious results. About six days after the departure of the party for Balloon Station No. 2, Commander Kransen was informed that, aided by two of the strange Eskimos, Willson had escaped from the camp, and that at the same time the entire settlement of strange Eskimos had also disappeared.

Capt. Jones, when the news was brought to Kransen, turned to him and said:

“That fellow will make some tarnation trouble for us.”

“There is very little doubt of that,” re-

plied Kransen. "I will immediately send a telegraphic despatch to the boys, telling them of Willson's escape, and warning them to keep on the lookout."

The following despatch was therefore sent, directed to the boys:

"Willson has escaped and left Camp Henderson, accompanied by all the strange Eskimos. Keep on the lookout for him, as I think he will try to make trouble."

"(Signed) KRANSEN, Commander."

CHAPTER II

ANDREE AND ERIC ARE IMPRISONED BY THE ESKIMOS

ANDREE and Eric left Balloon Station No 2 for a brief exploration of the neighboring portions of Grant Land early in the morning. The balloon had been finally inflated and properly equipped with wireless apparatus, and, in accordance with instructions received from Commander Kransen, had been packed with food, and other things necessary during an unexpected balloon voyage. Although it was not contemplated to use this balloon on an actual aërial voyage, yet Kransen had the foresight to provide for all possible contingencies. It might readily happen that, while some one was in the balloon making obser-

vations, or looking after some necessary details, it might slip from its moorings, and carry its occupants where such supplies would be of vital importance.

The boys had arranged to be gone for only a few days, as they did not expect to examine the country for more than forty or fifty miles from the balloon station. They were accompanied by their dogs, Hector and Snowflake.

As it is now about the middle of July, with the sun above the horizon during the twenty-four hours of the day, the temperature of the air was fairly comfortable, so that it was unnecessary to take a sleeping-bag or a tent with them. Indeed, should the air become cold, they could readily obtain the needed warmth while asleep by commanding their dogs to cover or lie down on them, thus keeping them warm. They had tied the small packages of provisions, as well as rubber blankets, to the backs of their

dogs. Since they had their rifles and revolvers, they could readily obtain plenty of fresh meat either from the birds or from land animals that were plentiful at that time of year.

“Andree,” said Eric, as they walked briskly along the coast of Grant Land, “let’s follow the coast for five or six miles, and then cross the country to the stream of water we can see flowing toward the north-east.”

“All right,” replied Andree, “and we must carefully note the different kinds of vegetable and animal life that are to be found in this district, for you remember Mr. Henderson’s request made to uncle Lars in the sealed letter No. 2. What a remarkable man Mr. Henderson is, Eric,” he continued, “and how splendid is his idea of commercially developing this Arctic wilderness.”

“Mr. Henderson is a wonderful man, all

right. As you know, we have already discovered two valuable beds of coal, a rich vein containing native gold, besides exceedingly valuable deposits of placer gold. Then, too, there are schools of whales off the southern shores of Kransen Island, a great rookery of fur seals on the northern coast of Hanscombe Island, besides the immense colonies of sea birds, herds of reindeer, musk oxen, walruses, and other Arctic animals."

"In order to succeed in the breeding of polar animals," said Andree, "we must study their breeding habits and take measures to provide them with their natural food, as well as to protect them from their enemies."

"Exactly," said Eric; "now, to begin with, here is a large stream of water connected with the ocean. It should form the breeding place of some of the animals, capable of producing either the valuable food

products or some of the many raw materials of the far north.”

Toward noon Andree turned to Eric and said:

“Eric, there is one kind of natural product we must try to obtain a specimen of as soon as possible.”

“What’s that, Andree?”

“A food product. I’m beginning to feel hungry. How do you think those birds will do,” he said, pointing to a flock of ducks that were passing over their heads. “Suppose we try to shoot a couple for dinner.”

“All right,” said Eric, “let’s shoot together. We should certainly be able to kill two between us.”

They succeeded in bringing down two of the birds, which they found to be long-tailed ducks, in excellent condition.

There was plenty of dry moss in the neighborhood. Collecting a pile, and constructing a rude stove, consisting of pieces

of slate, of which there was an abundance projecting from the side of a hill near them, they kindled a fire with the moss and fed it with pieces of fat from the breast of one of the birds. In this manner the oven soon became heated, and they had the birds, which they had properly prepared, roasting. This dinner was greatly enjoyed not only by the boys, but also by the dogs, which, besides receiving the entrails of the birds, came in for a share of some of the cooked meat.

The dinner had been cooked on the banks of the river they had seen from the headland. Its water was clear, cold and fresh, the channel in this part of its course being too far above the sea level to be reached by the tides in the ocean. The stream was so long that they were unable to see its mouth, although they could dimly see the ocean toward the northeast. On the west, however, toward the head of the river, was a large snow-covered valley, or perhaps, more

correctly, a glacier, in the melting of which the river had its source.

In this part of its course the river's bottom was rocky and free from silt or mud. The water was wonderfully clear and transparent, being almost absolutely free from mineral matters of any kind.

"As we are in no hurry, Eric," said Andree, after they had finished their meal, "what do you say to following the stream to its source, and then, returning, follow it as far toward the east as we can, so as to return to Balloon Station No. 2 by the end of, say, the third day after we left it."

"The plan is a good one. In this way we will know the stream from its source to as near its mouth as our time will permit, and should be able to obtain much valuable information."

As Eric was looking at the wonderfully clear, cold water, he evidently had some project in his mind. Andree was accus-

tomed to his friend, and knew that when he fell into what he called, in a joke, day-dreams, Eric generally proposed something worth considering, was careful not to say anything to interrupt these thoughts. At last, however, after five minutes of silence, seeing by the expression of Eric's countenance that he had reached some conclusion, he remarked in a laughing tone:

“Well, Eric, what is it? What tremendous scheme has that mighty brain of yours evolved?”

“Oh, come, Andree,” said Eric, good-naturedly, “what are you giving me? Stop poking fun at me about my mighty brain.”

“Well,” said Andree, “I’ll leave out the word ‘mighty,’ but will still ask what that brain of yours has evolved, for I clearly see that you have reached some kind of a conclusion.”

“Well,” said Eric, laughing, “I was thinking what a magnificent body of water

this would be for the breeding of sea trout or salmon, provided it remains unfrozen long enough and remains open at its mouth. Indeed, I would not be surprised if it was being employed as a breeding place by salmon, should they reach this high northern point. However, we will keep on the lookout for any fish that may be in the waters."

"That's a great idea, Eric," said Andree, delighted with the thought.

As already remarked, the waters of the stream could be traced to a large, snow-covered valley, or possibly to a glacier situated on the west, at a distance of what they estimated to be from eight to ten miles. During certain times of the year, however, in the Arctic regions, when the air is unusually clear, it is easy to make great mistakes in estimating distances. After they had gone for at least eight miles toward the west, the snow-covered valley or glacier appeared to be almost as far off as it seemed to be

when they first observed it near where they had eaten dinner.

It is a mistaken, although very generally entertained idea, that there is an almost total absence of vegetation in the lands of the far north. On the contrary, during the brief Arctic summer, owing to the continual presence of the sun above the horizon, day after day, and month after month, there results a fairly high summer temperature. Moreover, since the vegetable growth does not cease during the night, but continues throughout the twenty-four hours of the day, there is a rapid development during this brief summer. The snow has hardly disappeared from its surface when the land becomes covered with a green coating of moss, with here and there patches of grass. Moreover, in a wonderfully short time, this brownish green coating is decked with numerous small flowers of various tints, such as different kinds of saxifrages,

poppies, with their bright yellow flowers, clusters of blue forget-me-nots, and many white blossomed flowers.

What struck the boys as being especially curious about these flowers was their close resemblance both in shape and color to the flowers that cover the meadows in the eastern portions of the United States. But there was this difference: The different flowers of these far northern districts resembled those of the east only in miniature. They were, so to speak, Lilliputian copies. The short period of growth permitted them to attain dwarfish dimensions only. This smallness, however, did not lessen the splendor of their colors, which seemed all the more beautiful by reason of the marked contrast with their desolate surroundings.

As they went farther up the stream they saw much to interest them; although the sun had melted the snow from most portions of the land, large areas that had been

covered by snowdrifts still remained unmelted. Walking through the soft, slushy covering of these places, was, therefore, a matter of considerable difficulty. Moreover, the farther they proceeded the more frequently they met these areas.

Continuing up stream for a further distance of four miles, they found an immense valley, at least thirty miles across at its lower end, and possibly ten miles wide near the upper part. The mass of ice and snow that filled this valley appeared to consist, at least as far as its upper portion was concerned, of loose snow that had accumulated during the preceding winter. As they afterwards discovered, however, farther below the surface, it had been converted by the weight of the piled up mass, into more or less hardened snow or, indeed, into ice.

At this point they began walking over the surface of the snow for a distance of perhaps a quarter of a mile. Finding, how-

ever, the snow here covered by an ice mass, portions of which contained numerous cracks and crevasses, Andree said:

“Don’t you think, Eric, that it is foolish to continue walking here? If either of us should fall into a crevasse, the other might not be able to pull him out. Besides, I don’t think there is anything to be gained by walking over this surface.”

“I agree with you. We have seen all we care to see here. Let’s retrace our steps and follow the stream toward its mouth.”

They moved down the stream for the rest of the day. When they reached a portion about twenty miles below its source in the glacier, the stream had increased greatly in size.

Both boys were now quite tired with the exertions of the day, so, selecting a dry spot underneath a protecting rock, they built a fire and prepared their supper. Then they spread their rubber blankets on the ground,

and collecting a large pile of dried moss, they lay down to sleep, first calling on Hector and Snowflake to cover them, so that in a short time both boys and dogs were in a sound sleep.

Let us now leave the boys and go back to see what had taken place at Balloon Station No. 2. When the wireless telegraphic despatch from Camp Henderson was received, notifying them of the escape of Dr. Willson and the disappearance of the strange Eskimos, and directing them to keep on the lookout, the electrician, an Englishman named George Hodges, read the despatch to his assistant, James Albertson, also an Englishman, and said:

“This is an important matter, Jim. I don’t like the idea of the boys being away from the station while these fellows are wandering around. You remember that crazy man, Willson, don’t you, who came with the ‘Rescue’?”

“Yes, I remember the fellow with the big empty head, who went about our camp making fool speeches about Commander Kransen, Capt. Jones, Dr. Hanscombe, and others. If he is around here, backed by the strange Eskimos there is trouble ahead. I would like to have him here for five minutes. I should like to talk with him and give him a few points.”

“Well,” remarked Hodges, with a grim smile, “you may have your wish sooner than you think.”

“Why?” inquired his assistant, “do you think the fellow will come here?”

“That is exactly what I think,” was the reply. “And that is evidently what they think at Camp Henderson, for the despatch directs us to keep a sharp lookout.”

“Well, then, what are you going to do?”

“Send a despatch at once to Camp Henderson, asking for instructions. Were it not for leaving this station alone, I would

at once start off with you, try to find the boys, and bring them back. If we four can get together, I think we could give Willson and his Eskimo crowd as much as they could do to look out for themselves."

"That's right," replied his assistant, "send the despatch as soon as possible and ask for instructions."

The following despatch was therefore sent to Prof. Kransen:

"Despatch about Willson and the Eskimos received. Mr. Andree and Mr. Eric left the Balloon Station early this morning with their dogs. Expect to be absent for two or three days. Shall I close the station, leave the balloon, go after them, and bring them back?"

The following despatch was soon received from Camp Henderson:

"Close station. See that the balloon is tightly moored to the ground, and go at once with your assistant in search of the boys. Say I wish them to return with you to the Balloon Station. Take your revolvers and guns. You may have occasion to use them."

The men left the station, and traveled as rapidly as possible in the direction taken by the boys.

Returning now to the boys. After an early breakfast next morning, they determined to go down stream for half a day's journey, and then strike across the country toward Balloon Station No. 2, so as to be able to reach it in the three days, as they had promised.

On the afternoon of the second day, while they were retracing their steps toward the Balloon Station, their dogs suddenly began barking furiously.

Eric, knowing that something was approaching, cautioned Andree to be on the outlook. In a few moments they heard footsteps, and were surprised to see Willson, accompanied by one of the strange Eskimos, Eric at once recognized as one of the visitors at Camp Henderson, that had given the authorities there considerable trouble.

Willson approached the boys, and directing his conversation to Eric, said:

“I told you I would be revenged on you. Now, I’ll prove it. I’ll trouble you to hand me your rifles and revolvers, and do it quick, too.”

“There is something that goes with them,” said Eric, instantly unslinging his rifle, and aiming it at the head of Willson. “That something is in the shape of a bit of lead. Do you want it? Andree, get a sight on the Eskimo.”

Willson did not appear to be much alarmed when Eric covered him with his rifle, but such was not the case with the strange Eskimo. He had evidently heard the stories told him by the Eskimos who had visited Camp Henderson shortly after the erection of the headquarters. These men had seen the wonderful mastery the boy had over his rifle, as had been shown both at the entertainment as well as elsewhere, and de-

lighted to tell of the manner in which he had slain two musk-oxen.

“Young man big angekok. Great rifle shot. Never misses.”

And then he began to tell Willson of the wonderful feats Eric had shown while at Camp Henderson.

Eric, however, who had been brought up on a western ranch, did not intend to lose the advantage of having what is called out west “the drop on the man.” So he said in a determined voice:

“Throw up your hands. You came here threatening revenge, demanding that we give you our arms. Now, put down your rifles and revolvers on the ground quickly, or I will shoot you. Come, be quick about it.”

Seeing that they had determined people to deal with, without hesitating any longer the men placed their weapons on the ground.

“Now,” said Eric, “get out of this re-

gion as quick as you can. If you are seen again around here, we'll shoot you."

Without saying anything, the two men disappeared to the south, and soon went out of sight behind a hill.

"Andree," said Eric, "pick up those rifles and let us return to the Balloon Station at once. These men have probably a party of Eskimos with them."

The boys now proceeded at a rapid rate toward Balloon Station No. 2. As nothing more was seen of the men the rest of the day, the boys began to think the men were alone. They determined, however, to continue moving all that night toward the Balloon Station, for they were both in splendid condition, and knew they were able to continue at a rapid gait for from twenty-four to thirty-six hours at a stretch.

They had now been walking for nearly ten hours in the direction of Balloon Station No. 2. They stopped to prepare a meal, for

they were now very hungry. Andree was getting ready to start a fire, while Eric had taken his rifle and had gone away a short distance to see if he could not shoot a couple of birds for supper. The dogs had gone in the opposite direction from Eric's, apparently to get a drink of water. While passing a large rock Eric was suddenly struck by a stone thrown by an Eskimo, who had been in hiding back of the rock. The blow made him unconscious for a few moments, during which time his weapons had been taken from him, and his hands tied behind his back by several Eskimo men who had appeared from behind the rock as soon as Eric had fallen.

The lad's presence of mind, however, had not left him, for the moment he regained consciousness, as he did in a few moments, he thought of his friend, and cried in a loud voice:

“Andree, look out for yourself. They

have taken me. Shoot them if they come near you."

"Stop that, or I'll brain you!" said a voice that Eric instantly recognized as that belonging to Dr. Willson. "It's no use of your calling to your companion, for he is in the same fix as you are. If you don't believe me, look and see."

Eric looked and saw Andree being led toward him with his arms secured behind his back in the same manner as his own. There were now some twenty Eskimos gathered about Dr. Willson. The men had also succeeded in capturing Hector and Snowflake, for two men were dragging the dogs away with them, with ropes around their necks. The dogs were growling and struggling furiously to escape, for they understood that their masters were being taken away from them.

The Eskimos who had accompanied Dr. Willson were powerful men. The boys had

no difficulty in recognizing them as the strange Eskimos that had been living in snow houses near the winter headquarters at Camp Henderson.

Without saying anything else to the boys, the men led their prisoners toward the east. After a rapid march of three hours they came to an Eskimo summer settlement, and were placed in a small igloo, or snow hut, that had evidently been recently vacated by its occupants. They were left alone in this house, with their hands securely bound behind them. Here they were thrown on a pile of dirty furs that covered a small platform in the middle of the igloo. While being taken to the igloo, Eric noticed that the place was evidently a large summer settlement, for there were some six other snow huts or igloos in the immediate neighborhood.

As soon as the boys were left alone in the house, Andree told Eric the manner in which

the Eskimos had made him a prisoner. While preparing a fire, he had stooped down to kindle a lot of dried moss he had collected, having first unslung his rifle and placed it on the ground a short distance from the fire. As he was stooping down several Eskimo men came stealthily up behind him, and seizing him unawares, had bound him and, after securing his rifle and revolver, led him toward the party, that had already captured Eric.

“This is a bad fix, Eric,” said Andree. “What do you suppose they intend to do with us?”

“I do not know, but if that man Willson has anything to do with us, you may be sure that it will be both mean and cowardly.”

The boys talked together for several hours, when at last they fell into a troubled sleep.



Seized him unaware

CHAPTER III

MA-KIP'-SU AND KES'-SU TO THE RESCUE

IT sometimes happens that the little events in one's life, which at first sight appear insignificant, are in reality turning points. This was especially the case with Eric. For the sake of those who may not have read the other books of the North Pole Series, we will briefly recall two circumstances connected with the first visit of the Eskimos to Camp Henderson.

One of these was connected with the high esteem in which Eric was held by the Eskimos by reason of his wonderful skill with the rifle and revolver. During the visit of Kransen, and others, to the summer camp of the Eskimos during their first year at Camp Henderson, Eric had killed two musk-oxen

at a distance far greater than the Eskimos believed possible. They therefore held the lad in high esteem, calling him a mighty *angekok*, or wizard, and gravely telling him that they would pick out a wife for him. As is well known, the Eskimo regards one's ability to obtain food as the best proof of his standing. It was during this visit that *Ma-kip'-su*, a black-eyed girl, the daughter of the chief of the encampment, made no effort to conceal her admiration for the lad. This fact, being recognized by *Andree*, had resulted in no little chaffing, *Andree* declaring that unless *Eric* was careful they would marry him off to the dark-eyed lassie.

The other circumstance was connected with an Eskimo boy, *Kes'-su*, another of the first visitors at *Camp Henderson*. *Kes'-su* was then about fourteen years of age. He was the boy for whom *Dr. Stone*, while exhibiting the powers of an electro-magnetic machine, had materially decreased its

strength, in order to permit him to take a penknife out of a vessel filled with water. Since several strong men among the visitors had been unable to do this, the lad was very proud of his prize, and this was all the more so, because knives are much sought after by the Eskimos.

It happened that both of these Eskimos, who belonged to another encampment, were present as visitors at the encampment where Eric and Andree were taken while prisoners. Ma-kip'-su and Kes'-su were on their way to Camp Henderson with some of their people who had gone directly to the camp, but the boy and girl had stopped to visit some of their friends at this encampment. Ma-kip'-su and Kes'-su were related to each other, and had arranged to go on together to Camp Henderson in a few days.

When Andree and Eric were brought in as prisoners to the encampment, both Ma-kip'-su and Kes'-su instantly recognized

them, especially Eric, who had made a strong impression on the boy, as well as on the girl. They were, however, sharp enough to keep to themselves the fact that they knew the prisoners.

As soon as they had an opportunity to speak without being observed, Ma-kip'-su said to Kes'-su:

“Kes'-su, find out for Ma-kip'-su where they have taken the two Newfoundland dogs, and if you hear what they intend to do to the boys come and tell me.”

“Will Ma-kip'-su try to help the young angekok and his friend?” inquired the lad.

“Yes,” was the reply; “will you help them also, Kes'-su?”

“Kes'-su likes the white people. They were kind to him and gave him this,” he said, proudly showing the penknife. “Kes'-su will help Ma-kip'-su.”

“Don't let the men know you are trying to find out anything,” said Ma-kip-su to the

young lad. "Let me know where the dogs are kept, and what the people say about the great young angekok and his friend."

All people like to gossip, and this, no matter in what part of the world they live, or whether they are highly civilized, or, like the poor Eskimos, only partly civilized. It was, therefore, easy for both the girl and the boy to hear what was said about the two prisoners, for their arrival had set the tongues of all the Eskimos wagging.

They soon learned that the great white angekok (Dr. Willson) had been trying to make the Eskimos believe that all the white people at Camp Henderson were very dangerous, and had visited this part of the world, not only to kill all the walruses, musk-oxen, seals, and other things on which the Eskimos lived, but also, after making the Eskimos work for them, to carry them away in their great vessel to distant lands, where they would sell them as slaves. He

was especially trying to raise their anger against the young white angekok, Eric.

It appeared, however, that while the men with whom Dr. Willson had left Camp Henderson regarded Willson as a great angekok, much jealousy existed between Willson and the principal Eskimo angekok, for the doctor's coming had led the Eskimos to esteem their angekok much less than formerly. In order to win the Eskimo angekok over to him, Willson had agreed that the latter should hold a great pow-wow, during which he was to inquire both of the good and the bad spirits of the Eskimos what they wished done with the prisoners.

Meanwhile, Kes'-su had learned that the Eskimos, greatly pleased with the two magnificent Newfoundland dogs, had chained them near their settlement. That the dogs, scenting their masters, had become almost frantic in their efforts to reach them, so that it had become necessary to remove the dogs

to a snow kennel nearly a quarter of a mile from their encampment, where they had been left in charge of an old woman.

The boys awakened early next morning, but little refreshed by their sleep. Besides the worry and excitement natural under their circumstances, they had passed a miserable night, both because the igloo was in a filthy condition, the furs on which they had been thrown being almost alive with vermin.

They had unsuccessfully endeavored to loosen their bonds, but the great pieces of rawhide were too strong for them to break, and successfully resisted the efforts of their teeth when either of them would roll up to his companion in such a position as to permit attacking the knot with his teeth. Nothing but a knife could have helped him.

They were both hungry and thirsty, and began to fear it was the intention of their captors to permit them to starve to death.

They were, therefore, greatly relieved when an Eskimo woman came into the igloo with water and food, and inquired:

“White men hungry and thirsty?”

Eric, who now understood the Eskimo tongue fairly well, said:

“Yes, I see you have brought food and drink for the great white angekok and his friend.”

“I have,” replied the woman.

“Then loosen our hands so we can eat.”

The woman appeared to have no objections to doing this, and in a short time untied their hands. The first thing the boys did when their hands were free was to quench their thirst by a drink of fairly fresh water. They then partook of a meal of walrus soup.

As soon as they had finished their meal, Willson came into the igloo with two big Eskimos and informed the boys that their fate was to be decided that night by their

great Eskimo angekok, who would find out what both the good and the bad spirits of the Eskimos demanded should be done to them.

“It will be more than probable,” replied Willson in an ugly tone, “that they will decide that you should be killed. If they permit you to live, they will most likely order that you be taken to the Eskimo settlement some four or five hundred miles to the south, where you may never expect to see your friends again.”

Eric made no effort to conceal his contempt for Willson, but he did not give him the satisfaction of saying anything. Seeing this, Willson retired with his men, saying to the boys:

“I will leave your hands untied. You may try to escape, if you choose. Indeed, I hope you will try to do so, for there are men outside who are ordered to kill you should you make any attempt to get away.”

They received a plentiful supply of food and water from the old woman, who came into the igloo at irregular intervals.

That night the boys were taken into the largest igloo, where the pow-wow was held, during which the Eskimo angekok was to learn from the good and bad spirits what should be done with their prisoners.

The boys were permitted to attend this meeting not only because Willson wished to frighten them, but especially because the Eskimo people insisted on having the prisoners present, so that they could enjoy the terror which they believed they would exhibit.

Although it was daylight on the outside, this being the month of July, the inside of the igloo was so dark that it was necessary to keep several oil lamps burning. The Eskimo angekok, who had removed his coat and shirt, and was naked from his hips up, held two large spears in his hand. He ordered the lights to be extinguished, and be-

gan a weird dance in the middle of the igloo, all the time uttering words none of the audience could understand, and which he probably did not understand himself. In the meanwhile, both men and women, especially the latter, began crying out, beseeching the good and bad spirits not to injure them, but to tell their angekok what they wished done to the prisoners. This noise was kept up for fully half an hour.

The angekok now ordered the lamps to be relighted, when, taking one of the spears, he thrust it deep into the ground near the middle of the igloo, and then, after some additional incantations, he did the same thing with the other spear, and shortly afterwards pulling them up showed that their points were covered with blood.

A partial silence now came over the meeting. The angekok standing upright raised himself on his toes as if listening to a communication from the good spirits from

above. After standing in this position for a few moments he kneeled on the ground, holding his ear near it, in order to receive the message from the evil spirits.

The angekok now made a sign to the people in the room, indicating that he was ready to inform them of the fate of the prisoners. There was, therefore, a deep silence when he spoke as follows:

“The good and bad spirits declare that both the prisoners are powerful angekoks, who must be taken many hundreds of miles away to the south. They command that if the prisoners try to escape they shall be killed.”

“That means,” said Eric, “that Willson intends that we shall both die.”

“I think you are right,” replied Andree, quietly.

“Well, if we are to be killed, let’s meet our fate bravely. I will not give that cowardly brute, Willson, the satisfaction of be-

lieving that we are frightened or fear to die."

The boys were returned to the igloo, where they were left. From the noise they heard in the encampment it would appear that all the Eskimos were having a great old time, drinking and eating, after their religious exercises.

Notwithstanding the dangerous position in which they were, the boys, after talking together for several hours, at last fell into a fairly sound sleep.

Early next morning, while everyone in the encampment appeared to be in a deep sleep, a light hand was placed on Eric's mouth. Instantly awakening, Eric looked up and recognized the young girl, Ma-kip'-su.

"Ma-kip'-su says to the great white angekok, get up. His enemies intend to kill him to-morrow when they say they will take him to the far south. They will tell the people

that he tried to escape, and that they therefore killed him, as the good and bad spirits of the Eskimos told them to do."

In a little while Andree was awakened, and Ma-kip'-su led the boys outside past two Eskimo men who were lying in a deep slumber in front of the long opening leading into the igloo. They had in their hands spears with which they had intended to kill the boys if they should catch them trying to escape.

Ma-kip'-su, pointing to the men, made signs to the boys, by which they understood that she had put something in their drink that had caused them to fall into a deep sleep.

Following Ma-kip'-su, the boys were soon far beyond the encampment of the Eskimos. Here they met the boy, Kes'-su, who was holding in his hands their rifles, revolvers, and ammunition belts, together with their chronometers, or watches, and other articles

that had been taken from them by the Eskimos.

“Thank you, Kes'-su,” said both the boys.

“Hurry away,” said Ma-kip'-su. “Men may come. Ma-kip'-su glad to aid the great white angekok. Ma-kip'-su glad to save his life and the life of his friend.”

Eric, speaking in as low a tone as he could, said to Ma-kip'-su:

“We'll never forget the great service you have rendered us,” and taking the hand of the Eskimo girl in his, he pressed his lips against it.

Ma-kip'-su, who was greatly affected, said:

“Good-bye, great white angekok. Go quickly. Men may come.”

The boys turned to thank Kes'-su, but the lad had disappeared. In a few moments, however, they saw him coming, followed by the two Newfoundland dogs, Hector and Snowflake. Both animals were almost fran-

tic with joy to see their masters again, and resting their great paws on the boys' shoulders, began to lick them with their tongues.

“Great white angekoks good men,” said Ma-kip'-su and Kes'-su. “Their dogs love them. Would not love them unless they were good to them.”

The boys now bid their friends good-bye, and broke into a rapid walk, or rather a run, toward Balloon Station No. 2.

“They shall never take me again,” said Eric. “I shall not hesitate to shoot them should they again endeavor to take us prisoners.”

“I am with you there,” replied Andree. “I am sure they intended to kill us, as Ma-kip'-su said.”

When they reached a point about a quarter of a mile from the Balloon Station they saw, by the behavior of the dogs, that they were being followed. Both boys were swift runners, and starting off on a swinging gait

to the Balloon Station, they reached it before their pursuers came in sight. Quickly climbing into the basket of the balloon and calling to their dogs to follow them, they began unfastening the strong hempen cable that held the balloon to the ground. While doing this something fell off the balloon into the water, apparently having been displaced by the dogs as they jumped into the car. These articles thus thrown from the balloon were the Ruhmkorff coil and the voltaic battery belonging to the wireless telegraphic apparatus.

“There goes our Ruhmkorff coil and battery. This loss will make it impossible for us to communicate with Camp Henderson by wireless telegraphy. Shall I climb down to the ground and get it. It has not fallen into very deep water.”

“No, Eric,” replied Andree, “see, there is Dr. Willson ahead of the rest and is aiming a revolver at us or at the balloon.”

“I will stop that,” replied Eric, “I won’t kill him. I’ll put a rifle ball through his right hand,” and then aiming his rifle at the doctor, apparently without taking any very deliberate aim, he pulled the trigger, and almost instantly, Dr. Willson dropped his revolver, which exploded on touching the ground, the ball, however, passing harmlessly under the balloon. At the same time the doctor held his right hand in a position showing that it had been injured. The ball had evidently severed the radial artery, for they could see jets of blood being thrown out from the wrist evidently in unison with the beating of his heart, and collecting in a pool at his feet.

Taking a white silk handkerchief from his pocket the doctor tore it in halves, tying one half tightly around the wrist to check the flow of blood and permitting the other half to fall to the ground.

“You miserable coward,” shouted Eric,

from the balloon, "I have again spared your life. I doubt that you will ever make another autopsy with that hand."

By this time some of the Eskimos had reached Dr. Willson. They stopped around him a moment to aid him in checking the flow of blood. The boys took this opportunity of endeavoring to unloosen the balloon from its moorings. Finding a difficulty in doing this, Andree cut the hempen cable with his knife, when the balloon, thus liberated, rose rapidly in the air. This time the wind was blowing from the southeast so the balloon moved quickly toward the north.

CHAPTER IV

SORROW AT CAMP HENDERSON

WHEN the electrician, Hodges, with his assistant, James Albertson, left Balloon Station No. 2, to overtake the boys, they walked rapidly along the coast toward the west in the direction they had seen the boys take. Since they had watched them from the Balloon with a pair of opera glasses they knew the exact direction of the first parts of their course.

Since portions of the ground were still covered with snow they had but little difficulty in afterwards following the boys' footsteps when they crossed the snow-covered patches, and even in places that were uncovered, it was easy for a bright man to follow their footsteps. It happened that

Hodges was especially able to interpret these signs, since, before coming to America to study electricity, he had been employed as a detective in the great Scotland-Yard Police Department in London. When they came to the bank of the river they soon came to the ingenious stove Eric had formed from pieces of slate and in which they had cooked the long-tailed duck. When Hodges saw this stove he remarked:

“What clever chaps the lads are! See; they have been cooking something to eat. Now let’s see if we can trace their footsteps.”

Hodges saw almost at once that at this point there were two sets of footprints on the side of the fire toward the source of the stream in the snow valley or glacier, and but one set in the direction toward its mouth. He had, therefore, no difficulty in drawing the correct conclusion.

“Jim,” he said, “let’s follow the foot-

steps leading down the stream. They have first gone up stream and afterwards down it."

They rapidly followed these footsteps in silence, but could see no signs of the boys. At last they reached the place where the boys had been taken prisoners by Willson and his Eskimos.

At this point there was a confusion of footsteps of many different sizes, showing that a number of men had come up to the boys.

"I don't like the looks of this," said Hodges. "The Eskimos have caught up to the boys."

There was no lack of evidence that something unusual had occurred at this spot, which was where Andree had made preparations for starting a fire. They saw the collected pile of moss, which had never been kindled. Moreover, near the fire they found an unlighted safety match. Then

the ground around the fire had been trampled by many feet, and there were signs that a struggle had taken place.

A little farther on they discovered another collection of footprints that gave evidences of another struggle. Carefully examining the ground here a button was found by Albertson, who, looking at it, handed it to his companion, remarking:

“George, do you recognize that?”

“Sure, Jim,” was the reply, “that is one of the buttons from the younger lad’s coat. I remember seeing buttons like this on Mr. Eric’s coat while he was working with the wireless apparatus on the balloon. Jim,” he added, “there’s no doubt the boys have been taken prisoners by the Eskimos.”

“Then,” replied his companion, “let’s follow, and do what we can to set them free.”

They followed the footsteps as well as they could but soon lost sight of them, since

the ground at this point was unusually hard and free from snow, with practically nothing to give them a clew.

“Let’s hurry back to the balloon station,” said Hodges, “and wire Camp Henderson what we have discovered. As soon as the Camp gets word, they will send out parties, who will try to come up to the Eskimos and set the boys free.”

They were now only a few hours from the balloon station, when Hodges, suddenly pointing toward the station, said:

“Look at that column of black smoke, Jim. I am afraid we are too late.”

Breaking now into a run, they soon reached the station. What they saw greatly alarmed them. The balloon had disappeared. Instead of the partly completed, but substantially built wooden building they had left, there was nothing but its ruins, from which a column of smoke was rising. But there were no signs either of the Es-

kimos or of the boys, who had left fully three-quarters of an hour before.

“See here, Jim,” said Hodges, reaching a spot where a pool of blood had been left by the rifle wound made in the Doctor’s hand, “here is a pool of blood, but whose blood is it, that of the boys or that of some of the Eskimos.”

This discovery greatly excited them. The assistant at once declared they should at once take word of what had occurred to Camp Henderson.

“That’s all right, Jim,” said Hodges, “but let us first look around here and see what we can learn, for, of course, they will ask all kinds of questions as soon as we reach the camp.”

Hodges now made a close examination of the place. He first carefully looked at what was left of the hempen cable that had been employed for securing the balloon to the ground, and said:

“Jim, the cable has been cut by a knife. The balloon, has therefore risen in the air. We may still be able to see it in the skies.” But the balloon which, of course, by this time, was far out of their sight, could not be seen. They therefore concluded that it had been set on fire, and then cut free.

Returning to the pool of blood, Hodges picked up in its neighbourhood, half of the white silk handkerchief that Willson had employed for tying up his wrist to stop the flow of blood.

“Jim,” he said, “look at this handkerchief. And look at this,” he added, pointing to the initials, H. W., that had been carefully embroidered in one of the corners, “do you know whose initials they are?” he asked of his companion.

“No, whose are they?” he inquired.

“Henry Willson’s.”

They continued carefully examining the place, but did not find anything else. They

were about leaving the station to go to Camp Henderson, when they suddenly heard the barking of dogs and the shouting of sledge drivers.

“Here come the sledges from Camp Henderson,” said Jim.

When the sledges approached, the boat-swain, Hjalmar Gorgsen, who had been placed in command of the men, seeing no balloon, and the smouldering ruins of the station, inquired in an excited tone:

“What has happened? Where is the balloon? Where are the boys?”

“They appear to have been taken prisoners by the Eskimos, who left Camp Henderson with Willson. See here,” he said, leading the men to the pool of blood, and showing them the half of the handkerchief, “do you know that handkerchief?”

“Yes,” replied Gorgsen, “Willson had such a handkerchief when I locked him up in a room at Camp Henderson. Of course,

before leaving him, I carefully examined all he had in his pockets, and among them was a handkerchief like this.”

In the meanwhile, Joe, the Eskimo sledge driver, who was very much attached to the boys, and had been carefully examining the ground, suddenly looked up and said:

“See, dog marks,” and then added something in an excited tone in Eskimo that Heinrich, the fisherman, who formed a part of the sledge party, and who acted as an interpreter for the Eskimo language, translated as follows:

“Joe says that he believes that these marks are the marks of two Newfoundland dogs belonging to the boys.”

While they were examining the marks, Joe’s sharp eyes saw something shining in the water near the coast.

Stepping into the water, which was shallow near the shore, Joe picked up, one after another, the Ruhmkorff coil, and several

voltaic batteries, that had been employed in the operation of the coil forming a part of the wireless apparatus on the balloon.

“This looks bad,” said Hjalmar, “it would seem that an attempt has been made to destroy the balloon which may have been set on fire and then liberated by cutting the cables, as it has risen into the air and drifted out of sight. Let us hurry back to Camp Henderson. I am sure that as soon as Commander Kransen learns what we know he will send a party to rescue the boys if living, or to avenge them if dead.”

“All right,” said Hodges, “but before we do this, let us be sure that neither the boys nor the Eskimos are anywhere in the neighborhood, and let us see if the basket of the balloon has drifted to any part of the coast.”

In accordance with this suggestion, they divided themselves into two parties and carefully searched the country for miles around. Their search was, however, un-

successful. So they soon set out sorrowfully for Camp Henderson, without unloading their sledges.

When Ma-kip'-su and Kes'-su bade the boys good-bye they stood for a few moments looking after them as they went toward the balloon station, and then both started on a run toward the encampment of the Eskimos, which they reached about half an hour afterwards. They did not wish the Eskimos to know they had taken any part in the release of the prisoners. Slipping into the encampment unobserved, they were both in an apparently deep slumber in their igloo. Several hours afterwards, when it was learned that the prisoners had escaped, there was no suspicion against them, since the Eskimos had much trouble in awakening them.

When Willson and the pursuing Eskimos returned to the encampment, Ma-kip'-su and Kes'-su saw that the boys were not with

them they were greatly pleased, believing that they had escaped. But while they were returning, Willson persuaded the men with him to say that they had overtaken the boys and in accordance with the instructions received from the good and bad spirits they had killed them and thrown their bodies in the deep water of the ocean in front of the balloon station. That they had burned the balloon station, destroyed the wireless apparatus, and, after setting fire to the balloon, they cut the cable close to the ground. That the balloon had risen rapidly in the air, moving off toward the north until it had entirely disappeared.

Ma-kip'-su and Kes'-su were deeply affected by the bad news of the death of the boys, which they thoroughly believed. Bidding their friends good-bye, they left the Eskimo encampment and started off for Camp Henderson to tell the great white chief the bad news they had learned.

The wireless despatch from Balloon Station No. 2, saying that the boys had left the station to be absent for several days, and asking for instructions had been received. Alarmed for the safety of the boys, Kransen read the message aloud to Dr. Hanscombe and Capt. Jones, who were with him in the wireless station. When he heard the despatch, Hanscombe said:

“This is very bad. I fear the men will overtake the boys and do them some harm.”

“Commander, don’t worry,” said Capt. Jones. “I’ll back our boys to take care of themselves. They have their rifles and their revolvers. Remember what a wonderful shot Mr. Eric is. I wouldn’t hanker being one of a party to try to injure him, when he had his shooting irons handy.”

Dr. Hanscombe was greatly worried and said to Kransen:

“Better wire instructions to the men to shut the balloon station, try to overtake the

boys, and bring them back to the station. While I agree with Captain Jones that they ought to be able to make a stand against Willson and his Eskimos, yet if the four come together they will be much safer." So the message was sent as already stated.

Kransen had been in a deep study for the last few minutes, but at last looked up and said:

"Hanscombe, I will take two of the sledges and start with a party for the balloon station. I don't feel like waiting here. Since the men have left the balloon station we can't expect to hear from them for probably a day or so."

"That's a good move, Kransen," said Hanscombe, "if you have no objections, I would like to go with you."

"Come along by all means," said Kransen.

In a short time the party left the camp.

Since much of Grant Land is covered in

places by an almost permanent ice sheet, the sledging party, like the previous parties, was able by picking its way over snow covered surfaces, for the greater part of their journey, although in some places they were obliged to help the teams move the sledges over nearly dry ground.

When they reached a point about forty miles west of Camp Henderson, they saw two Eskimos approaching them. Kransen, who always carried powerful glasses with him, after looking at the two people, said to Dr. Hanscombe:

“ I think I remember seeing those people last year in our camp.”

“ Yes,” said Hanscombe, who had also been examining them with his glasses,” “ they are the girl, Ma-kip'-su, who Andree declared had fallen in love with Eric, and the boy, Kes'-su.”

As soon as the two Eskimos approached they went to Com. Kransen and began say-

ing something excitedly in the Eskimo language. Hans Minnemann, the hunter, who acted as interpreter in the absence of Heinrich, said to Kransen:

“They bring terrible news. They say that the Eskimos, accompanied by Willson, have burned Balloon Station No. 2, destroyed the balloon, murdered the boys, and thrown their bodies into the deep water of the ocean near the balloon station.”

“My God,” said Kransen, “this is awful,” and then instantly inquired of the two Eskimos for the particulars.

In reply to these questions, the boy and girl gave a full account as to how they had helped the prisoners to escape from the Eskimo encampment; how they had returned to them their rifles and revolvers, as well as their dogs. They explained about the pow-wow, when the Eskimo angekok declared that the good and bad spirits had sentenced the boys to be carried so far to the south

that they would never again be able to see their friends, and ordering the Eskimos to kill them should they attempt to escape.

It therefore appeared that the boys had been overtaken by their pursuers and murdered.

“Let’s hurry toward the balloon station and see what has become of the two men who left there in search of the boys. They may have some information,” said Commander Kransen. “We also have to meet the sledge party that set out for the station with the material necessary for the completion of the quarters. These men may also have news. As soon as this is done and we learn what they have to tell us, we will proceed to the Eskimo encampment and punish the men for what they have done to our dear boys.”

The party now moved rapidly toward the west. In about half an hour, they saw Hjalmar and the two electricians from the Balloon Station No. 2 approaching them.

It was a sad meeting between the two parties. The news brought by Ma-kip'-su and Kes'-su agreed so closely with what had already been learned by Hodges and Albertson, that it did not seem as if any doubt could exist but that the boys had been murdered and their bodies thrown into the ocean.

Hanscombe and Kransen recognized the button that had been found as being the same as those on Eric's coat. They, therefore, hurried to the Balloon Station and spent several hours in an examination, of the place and its surroundings. The ocean, though quite shallow near the shore, was very deep at short distances from it. Having no grappling irons with them they were unable to make a satisfactory search of the water, but Kransen determined to return at an early date to the neighborhood with a gasoline motor boat and make a careful search with properly prepared grappling irons.

“And now,” he said, in a determined tone, “we will go to the encampment and avenge the murder of the boys.

Under the guidance of Ma-kip'-su and Kes'-su they reached the Eskimo encampment in good time. The place, however, was entirely deserted. Knowing that the great white chief from the east would come and punish them for killing the two boys, as they believed they had done, they all suddenly left the encampment for some unknown point.

On their return to the Balloon Station a further search was made in the deep water for the bodies of the boys. A rude grappling iron having been constructed for this purpose. It was unnecessary, however, to say that this search was unsuccessful.

When he finally gave up the search Kransen said:

“Although I fear the boys are dead, yet until I actually see their bodies, I shall

never give up searching for them. I now have no desire to return to the east, but shall remain in this part of the world not only until I thoroughly carry out all that Mr. Henderson wishes me to accomplish, but I shall remain here even afterwards, for the boys may not be dead. Indeed, something tells me they are still living."

"And I shall remain with you," exclaimed Hanscombe. "I feel about this matter as you do, I shall never give up searching for the boys until I either find them or their dead bodies."

"And if you will let me remain with you," said Hjalmar, "I will help you in this search."

Joe now came to Prof. Kransen and said through the interpreter:

"If Newfoundland dogs here, they would help find the boys."

"I should not be surprised if there is something in that," remarked Kransen.

It was, therefore, determined to send out a party with Joe to scour the country to the south and try to find the Newfoundland dogs if possible.

CHAPTER V

AN ARCTIC BALLOON VOYAGE

THE balloon had ceased rising and was now being rapidly carried by the wind toward the north. Andree, to whom Eric had handed the glasses, looking through them saw that the remainder of the Eskimos had joined Willson. They all began looting the station, and afterwards set it on fire. At this moment, Andree said in an excited tone to Eric:

“Eric, that man, Willson, is helping the Eskimos to set fire to the station. One might excuse such ignorant people as the Eskimos for destroying property, but for an educated man like Dr. Willson to do this surprises me. Here, Eric,” he said, hand-

ing him the glasses, "please look, I want you to see this yourself."

Eric looked through the glasses, and although the balloon was rapidly moving away from the station he could distinctly see Willson aiding the Eskimos in firing the place. He noticed, however, that the doctor had the use of his left hand only.

"Yes, Andree," he replied, "I see. Willson is not only setting fire to the building, but he is also aiding in the stealing of the property of the expedition."

"How idiotic," remarked Andree. "What good will it do him? Suppose he succeeded in destroying everything at Camp Henderson as well as at the balloon station, what advantage would that be to him?"

"If that's a conundrum, Andree, I give it up. It is too hard to say what a man of the calibre of Dr. Willson would not be willing to do in order to satisfy his insane desire for revenge."

By this time the rapidly moving balloon had carried them so far from the station that they had difficulty in distinguishing objects clearly. They could see, however, that the partly finished house was burning fiercely, when the Eskimos moved rapidly away from the station toward the southwest. At last the distance became so great that they could see only the faint outline of the headland with a slender column of smoke rising from the site of the balloon station.

They now had an opportunity to examine the condition of the balloon, as well as to look at the supply of provisions and other articles of food Kransen had directed to be placed in it.

Finding the balloon in good condition Eric gave his attention to the examination of the wireless apparatus. These appeared to be in good condition, with the important exception of the Ruhmkorff coil and the voltaic battery.

"It is very unfortunate," said Eric. "This loss will prevent us from sending a wireless message to Camp Henderson, informing them of our escape. It is of the utmost importance they should know that we have escaped. They should especially be warned of the astonishing behavior of Willson and his Eskimos."

"You don't suppose, Eric, that Camp Henderson will have any trouble in defending themselves against these fellows?"

"Defending themselves," said Eric in astonishment. "Why one-fifth of our people at Camp Henderson armed with repeating rifles and brains could wipe those fellows off the face of the earth."

"Are you sure, Eric, there are no extra batteries or Ruhmkorff coils in the balloon?"

"I don't think it likely, but let's look. I remember superintending the placing of stores in the balloon, and I'm almost certain

that there are no extra parts for the wireless apparatus."

A careful examination lasting nearly an hour, brought the disheartening realization that he was right.

"There is not even the battery necessary for operating the receiving apparatus," remarked Eric.

An examination of their stores showed that, besides food and water, sufficient, with care, for several weeks, they were provided with an aneroid barometer for estimating the height of the balloon in the air, thermometers for taking the temperature, as well as various other meteorological apparatus. There was also a sextant for obtaining their latitude, so that with their chronometers, which they had wound up shortly before they had been taken from them by the Eskimos, they could readily calculate their longitude. But what especially pleased the boys was that among these supplies was a

large quantity of loaded shells, employed in their magazine, rifles and revolvers.

“Of course, Eric,” said Andree, “we will try to return to Camp Henderson as soon as possible?”

“Certainly, Andree, but, since the ice field below us contains fairly large areas of open water, we had better not attempt to land just now. Besides, our enemies can see our balloon much better than we can see them. They are probably on the lookout for us, and should we descend they might attempt to recapture us and it is not likely that we could again escape.”

“That would, indeed, be a serious matter,” remarked Andree. “We have seen too much for them to permit us to live, even if they had not the bad advice of that bloodthirsty fellow, Willson.”

“They shall never again capture us alive,” remarked Eric, in a grave tone. “The next time I shoot at those men, it will

not be for the purpose of merely maiming, but for killing them.”

Both Eric and Andree knew that if the wind near the surface is blowing in a certain direction, that they would probably find above them an upper current blowing in the opposite direction. By rising high enough, therefore, they would reasonably hope to reach a current that would carry them back again to the south.

“It will be safest to continue moving as we are for another half hour and then try to find an upper current that will carry us toward Grant Land.”

Up to this time the boys had been too busy to talk much with each other. Now, however, they had the chance to go into details over their recent exciting experiences. They fully recognized the grave dangers to which they had been exposed, and how narrowly they had escaped being murdered. They had no reasonable doubt that Willson

had planned to have them killed, under some pretense or other. They felt under great obligations to their young Eskimo friends, Ma-kip'-su and Kes'-su, since they understood that in taking their part they ran the risk of being roughly handled by the people at the encampment should what they had done, become known.

The life the boys had led while in the Arctic regions had been of such a nature that they had become so accustomed to taking care of themselves that the fact of their being alone in a balloon with no companions except their dogs, and that this balloon was rapidly carrying them away from Grant Land, gave them but little anxiety. They had safely escaped from their captors, had regained their rifles and revolvers, had an ample supply of ammunition, and, moreover, had their Newfoundland dogs with them. They believed therefore, that they would find an upper air current that would

take them to some point on Grant Land, when they would descend and make their way over land or ice to Camp Henderson.

“Andree,” said Eric, after the balloon had been moving for some time toward the north; “I wonder what Hector and Snowflake think of their first balloon experience? It is so novel to them, that I am surprised they have not shown any signs of fear.”

“I guess they are so glad to be with us that they have not found time to get scared. It’s all right here, Hector and Snowflake,” he said, addressing the dogs. “You are feeling pretty good, aren’t you, doggies?”

The dogs appeared to have some idea of what was being said to them, and endeavored to reply, by shaking their tails as well as in other ways, that as long as their masters were with them, they did not intend to let anything worry them. The strange moving house in which they were sitting might carry them anywhere, if only they

were permitted to remain with their masters. Indeed, the dogs found there was so much they wanted to say that any ordinary shaking of their tails was so ridiculously insufficient, that they added a number of novel shakings they had never thought of before, so that Andree said:

“Look at the dogs, Eric, they are trying to talk to us, by a wonderful wagging of their tails.”

“Trying to talk,” replied Eric, “why they are talking. They make tail shakings say more than the tongues of many people I have known. You’re glad to be with us, aren’t you, Hector and Snowflake?” he said, speaking to the dogs.

The dogs evidently felt that such a question required more than even the wonderful shakings of their tails they had before employed, so that resting their paws against their masters’ shoulders, they began to lick their hands and faces, and uttering a va-

riety of cries that certainly were intended to say something like the following:

“As long as we are with you, we don’t care what happens.”

When the balloon left the station the sky was clear and free from clouds, and since they were near the surface of the earth they had no trouble in distinguishing the appearance of the ice pack that lay beneath them, as far as the eye could reach. To the north there was the same monotonous, unbroken ice surface with, however, a great number of lanes or openings free from ice. The same appearance was seen toward the south except on the distant horizon they could see a faint dark line that marked the headland of Grant Land. They made careful note of what they saw in their note books as usual.

They determined now to rise in the air in an endeavor to find a counter current that would carry them toward Grant Land, pos-

sibly in the neighborhood of Camp Henderson.

As is well known, a balloon, when properly managed, can easily be caused to rise higher into the air, or to descend toward the earth as one may wish. In order to rise, it is only necessary to throw overboard some ballast, or weight, that has been placed in the car or basket of the balloon for this purpose. A balloon set free in the air will rise until it reaches a distance above the earth where the weight of the air it displaces is exactly equal to its own weight. It then continues to move onward by the action of any current of air in which it may be. If, however, the weight of the balloon is decreased as by throwing ballast overboard, the balloon at once rises higher in the atmosphere.

There is danger, however, in permitting the balloon to ascend too high, since the higher it rises above the level of the sea

the smaller is the pressure which the air exerts against its outer surface. With every decrease of pressure, its gas expands, thus exerting a greater pressure against its interior walls. This pressure may at last become so great as to burst the balloon. It is necessary, therefore, in rising in the air to observe carefully the condition of the balloon and if the pressure of the gas it contains becomes too great, to pull the rope connected with the valve and so permit some of the gas to escape.

No matter at what height the balloon may be, if sufficient gas is permitted to escape it may be caused to descend to the surface.

It is only possible, however, for a balloon in this manner to change its distance from the surface of the earth for a limited number of times, since if it is caused to rise and fall too frequently it will soon have lost so much of its gas, as well as its ballast, that it will be necessary to descend to the surface.

When, therefore, the boys determined to permit the balloon to rise, Eric went to one of the bags of ballast so as to untie it and throw its contents overboard. Their ballast consisted of finely divided material principally sand, which could be safely thrown out when high in the air. Of course, large masses like heavy rocks, if thrown overboard, would fall with dangerous velocities.

The ballast was stowed in bags supported on the outside of the basket, and arranged so that the material could be dropped by untying the mouths of the bags which had been placed so as to point downwards.

Unfortunately Andree understood that Eric wished him to also untie the mouth of the bag nearest him, so that all the ballast was discharged from the two bags. The balloon, thus decreased in weight, rapidly rose high into the air.

It is well known to aeronauts that the only way in which the motion of a balloon

can be detected is by reference to surrounding objects, and, since there were no clouds, the only object that Andree could see was the ice-pack or water surface below. While, therefore, Andree was leaning over the side of the basket watching the sand falling it seemed to him, that the balloon appeared to be at rest in the air, and the earth seemed to be falling away from it.

“Eric, see how odd the icepack looks. It seems to be falling away from the balloon.”

“Yes,” said Eric, “that’s so.” He then noticed for the first time that Andree had emptied the bag of ballast on his side of the balloon. Eric stood aghast for a moment as the terrible import of what had happened burst upon him.

“I am sorry, Andree, that you misunderstood me,” said Eric.

“What’s the matter?”

“I have also emptied a bag of ballast on my side of the balloon, so between us, we

have thrown out more ballast than I had intended."

"Well, what of that?" inquired Andree.

"We have not only lost some of our ballast, which is an important thing, but we have thrown out so much that the balloon will rise too high in the air."

They could now see that the balloon was moving rapidly upwards, for the aneroid barometer now indicated their height as considerably over a mile or eight thousand feet above the ice-pack, with the barometer still falling; that is, with the balloon still rapidly moving upwards, and this continued until the barometer indicated a height of ten thousand feet or nearly two miles above the level of the sea.

Both boys now began to experience difficulty in breathing, together with severe pains in the ears. Moreover, Andree's nose commenced to bleed copiously. Their dogs, too, showed signs of distress, and

moaned as if in pain as they looked anxiously at their masters, as if to ask what the trouble was.

Eric, who had been carefully watching the balloon, suddenly cried in an excited tone:

“See, Andree, how rapidly our balloon is swelling. Unless we let some of the gas escape, by opening the valve, it will burst.”

Andree pulled the rope and opened the valve. A rushing sound was heard as the gas escaped and the balloon rapidly descended, as could be seen from the rapid rising of the barometer, as well as when they got near enough to the earth to distinguish the ice field below for the curious manner in which the ice field seemed to rise to meet them.

The air, which up to this time had been quite clear, now began to change. Clouds began to collect, and a fog set in that soon hid the ice field from them. The barometer, however, showed that the balloon was

neither rising nor falling, but was merely being carried along by the wind. There was, therefore, no immediate danger.

“What shall we do now, Eric?” inquired Andree. “It would be unsafe to attempt to descend, would it not?”

“Yes,” said Eric, “we won’t attempt to descend now, but wait where we are until the fog lifts, so we can see the ice field.”

The boys took the situation philosophically. Not being able to do anything they determined to take matters coolly. Therefore, they took some food from their stores and began to break their long fast, not forgetting their dogs.

The fog increased in density so that they could see nothing at all beneath them.

The fog continued for a long time, so that the boys, fatigued by their exertions during the past thirty-six hours or over, began to be sleepy, so they determined to divide the time into watches, of three hours each, and

that one should keep a lookout on the balloon while the other slept. This was done, the first watch falling to Andree, so that Eric bundled himself on the outside of a sleeping-bag that had been placed in the bottom of the basket, and was soon asleep alongside of Hector and Snowflake.

The storm continued through four successive watches without any incident of note occurring.

CHAPTER VI

THE ULLOA CIRCLE, OR THE PHANTOM BALLOON

THE velocity of the wind decreased, but the fog continued until the middle of the next day. As the sun came out and the fog gradually disappeared, they could again see that the ice was still characterized by alterations of ice and water, but the open areas were greater than before. The balloon was still moving toward the north, although less rapidly than on the previous day.

“Let us take an observation of the sun so as to see where we are,” said Eric.

This was done when their chronometers indicated twelve o'clock, or high noon. When Eric was taking the observation of the sun so as to determine the latitude, An-

dree began a computation of their longitude. After the necessary calculations were completed Eric said:

“We are in lat. 86° N., so that we can not be very far from Hanscombe Island.”

“That’s right,” replied Andree, “but our longitude shows that we are considerably to the west of that island.”

The balloon was sufficiently near the ice pack to enable them to examine closely its surface. There was no land whatever in sight but, as already stated, the pack was much freer from ice than it was at any time that they had seen it from the balloon. It was therefore clearly impossible for them to think of descending.

“There are two courses open to us,” remarked Eric, “we must either go on with the surface wind toward the north, or we must again throw over some of our ballast, and endeavor to find an upper wind which will carry us back again toward Grant

Land. For my part, I think it may be best to endeavor to find the upper current."

Andree suggested that before actually reaching a conclusion they should carefully discuss all the reasons for and against this change of direction. So they talked the matter over for about a quarter of an hour, and had determined to try to reach an upper current, so as to change their direction when the air again began to lose its transparency, and in less than another quarter of an hour the fog had settled around them denser than before.

"The matter has been decided for us," said Eric. "There is now nothing to do but to let the balloon be carried with the wind toward the north."

"Very well then," said Andree, "let's make ourselves as comfortable as possible." So he seated himself on the floor of the basket alongside the Newfoundland dogs, where he was joined by Eric. The boys then

began to pet their dogs, which, greatly pleased with the attentions their masters were giving them, helped the boys to spend a pleasant hour. During this time, however, they did not fail to watch the balloon, as well as from time to time to observe the height of the barometer. Since no change occurred in the barometer they were satisfied, that the balloon was not changing its distance from the surface.

The dense fog continued for about two hours longer, when it disappeared permitting them again to see the surface of the ice pack below them. They could now see that the balloon was much nearer the earth than formerly. As soon as Eric observed this he said:

“We have been losing gas, and are slowly falling. We cannot safely descend here. Let’s throw some more of the ballast overboard. If the balloon falls much farther, it will strike the surface.”

“All right,” replied Andree, “but this time only one of us will throw the ballast out. Suppose you attend to it.”

“I won’t empty a full bag of ballast,” said Eric. “I will let it out slowly, and as soon as the balloon has risen a short distance, I will close the bag.”

This plan worked very satisfactorily. When about one quarter of the ballast had been permitted to escape from one of the bags, the balloon had risen a fairly considerable distance. Eric then closed the mouth so as to prevent the escape of any more.

The balloon continued at about an elevation of about 1,200 feet for a fairly considerable time, when it again began to fall. As soon as it came too near the surface, another quarter of a bag of ballast was permitted to escape, and the balloon again rose in the air. The wind had now completely died down. There was a dead calm, and the balloon was floating quietly in the air

without any motion whatever. It was now in a thin fleecy cloud, the particles of which consisted of small flat ice crystals. In the light of the sun the crystals began to shine like thousands of miniature diamonds. It was a beautiful sight, and was greatly enjoyed by the two boys, who were examining it while leaning opposite each other on different sides of the basket.

Although both boys could see the ice cloud yet neither was able to examine the portion of the cloud the other was observing. There suddenly appeared on the side of the balloon directly opposite Andree a surprising sight. Immediately before him, at a distance of about half a mile, he could distinctly see another balloon very closely resembling in form, size and height from the ground, the one in which they were seated.

Scarcely crediting his eyes he kept quiet for a moment hoping the balloons might come nearer together. As far as he could

see, however, they maintained the same distance apart.

When Andree first saw the strange balloon the following thoughts passed through his mind:

“Is this the balloon of some other Arctic explorer, who is trying to reach the north pole, or is it not more probably, a balloon sent out from Camp Henderson to rescue us? If so, then possibly uncle Lars, as well as Dr. Hanscombe, will be in it.” So crying out in an excited tone, he said:

“Look, Eric, there’s a balloon near us just like ours.”

“Where?” cried Eric, greatly excited.

Andree, pointing to the strange balloon, said:

“There it is, Eric. As you can see, it is the same size as our balloon and of exactly the same color.”

“Can you see anyone in it?” inquired Eric.

“No,” was the reply. “Although there seems to be something in it that may be men.”

“Wait a moment, I will look through the glasses,” said Eric. After looking in this way for a moment, he said:

“I am not sure, but I think I can see two persons standing together looking over the basket. Take the glass, Andree, and tell me what you can see.”

After a few moments, Andree replied:

“I am almost certain I can see two persons in the basket, and what is strange they appear to be of the same size as ourselves, but I can’t see distinctly, and may be mistaken.”

“I have been wondering, Andree,” said Eric, “whether this is not a balloon that has been sent out from Camp Henderson to rescue us.”

“I would not be surprised,” was the answer. “I remember that uncle Lars had

quite a number of balloons he intended to employ for stationary balloons. They were of the same pattern and, moreover, of the same size and color as the balloon in which we are seated. You remember that one of these balloons was carefully packed in the cave at Kransen Island, when we left that place in the dirigible balloon."

"In that case," said Eric, "the balloon will contain some of our friends. Andree," he said, as his eyes sparkled with joy of the possibility, "your uncle, Prof. Kransen, may be one of its passengers, and possibly uncle Horace also."

They stood watching for a short time, hoping against hope that a wind would rise and bring the two balloons nearer together, but as before, the distance between them remained apparently the same.

"Let's try to attract their attention by shouting."

Both boys cried out as loud as they could.

Although in the rare air their shouting did not sound very loud, yet they certainly should have heard if any people had been in the strange balloon. Disappointed that no notice had been taken of their cries, Eric remarked:

“Suppose we fire off our rifles. They will make louder sounds, and will probably attract their attention.”

“Very well,” was the reply, “only take care that the bullets don’t strike the balloon.”

As the rifles rang out in the clear air, the boys were surprised to see two people of the same height as themselves, also firing off guns.

But what especially surprised them was that the guns fired by the strangers in the balloon produced no sounds that they could hear, although they could distinctly see the flash of light accompanying the report of the explosion of the powder.

“Let’s fire again,” replied Eric.

They did so, and again could see the strangers in the neighboring balloon apparently aim their rifles toward their balloon, but as before, no sound was heard, although the flashes of light were distinctly visible.

“What kind of people are they?” exclaimed Andree, in astonishment. “If we were superstitious we might believe that this is a ghost or phantom balloon. That its occupants are the spirits of some of the many Arctic explorers who have perished in these regions in their efforts to reach the Pole.”

“They might, indeed,” replied Eric. “Andree,” he continued, “have you ever heard of the Flying Dutchman?”

“I don’t believe I have,” was the reply. “Tell me about it.”

“It was a phantom ship sailors sometimes claimed to see, generally before some great calamity, moving through the waters of the

ocean, apparently indifferent to the severest storms. Both the ship and its crew were clearly visible, but its men had the awful appearance of dead men, so the sailors believed they were ghosts. Yonder balloon, which certainly looks like a phantom balloon, reminds me of the Flying Dutchman. You see we can not make ourselves heard by the people in it."

"Let's try again to make ourselves heard," said Andree. So the two boys began to shout at the top of their voices:

"Balloon ahoy! Balloon ahoy! Who are you?"

They now thought they heard the words, "are you," coming from the phantom balloon, but they were not sure, for when the boys while shouting stood on their feet, and held their hands before their mouths so as to make a sort of megaphone, the people in the phantom balloon did the same thing, and even when the boys gesticulated with their

arms they could distinctly see the strangers in the balloon repeating these motions, as if ridiculing them.

“Look at that, Eric,” replied Andree. “They are mimicking us.

“Why don’t you answer us?” cried out Eric, in a loud tone. “Balloon ahoy! Why don’t you answer us?” he continued.

And they faintly heard a cry of “answer us.”

And now something still stranger happened, for the two Newfoundland dogs hearing their masters cry out to the distant balloon began barking furiously, and running around the basket, would rest their paws against the basket, changing their positions on the sides of the basket rapidly. Instantly, two phantom Newfoundland dogs were seen on the phantom balloon repeating all the motions of Hector and Snowflake, but as before producing no audible sounds.

Andree was now thoroughly frightened,

but not so Eric, who was much quicker to grasp natural phenomena, and had at last solved the problem of the phantom balloon, for he began laughing as though the whole occurrence was the funniest joke imaginable.

“Don’t get scared. It is nothing that cannot be easily explained.”

“But, Eric,” inquired Andree, “what kind of people can they be in that balloon? Are they really phantoms?”

“Yes, Andree,” said Eric, “for,” he said, laughing, “look at those circles of light that you can see surrounding the balloon.”

On looking, Andree saw several circles of whitish light surrounding the balloon.

They had observed these circles before but now they were much clearer.

“If they are phantoms,” said Andree, “I don’t see anything to laugh at, yet you appear to think it very funny.”

“It is funny,” said Eric, still laughing, “but sit down in the basket of the balloon,

my lad, and I will show you something that I think will make you laugh with me.”

As Andree did this, Eric now began to make all kinds of odd movements, occasionally jumping up into the air, but, of course, being careful always to land into the balloon. Instantly the phantom figure in the balloon corresponding to Eric, at once began repeating these movements. Eric now pretended to get angry at the figure, and cried:

“You impertinent fellow. I challenge you to fight a bout with me according to the Marquis of Queensberry rules.” Then placing himself in the most approved boxing attitude, he began squaring off at his ghostly antagonist, every now and then pretending to give him a severe blow on some vulnerable part of his body, if, indeed, ghosts have vulnerable parts.

Whenever a specially clever blow had been landed Eric would enjoy himself by remarking:

“How do you like that, old fellow? Do you want another?”

But the phantom figure made no answer, being apparently satisfied with repeating exactly all the movements they had seen. This scene was so extremely funny that Andree commenced to laugh. At first only a feeble imitation laugh, but at last as the meaning of the whole thing came to him he laughed in a hearty, uproarious manner.

“I understand it all, Eric,” he cried. “What a great fellow you are to read natural signs. What we have been looking at all this time have been merely looking-glass pictures of ourselves and balloon.”

“Yes,” said Eric, “that’s the explanation, but I want to take exception to your calling me a bright fellow. On the contrary, I think I have been a very stupid fellow not to have seen so simple an explanation long before I did.”

“If you can explain this curious phenom-

enon to me," said Andree, "I wish you would do so."

"I remember reading a short description of the phenomenon we have just observed," replied his companion. "It is what is called the 'Ulloa Circle,' or the 'White Rainbow.' Without going into a full description it may be explained as follows: Sometimes, although very rarely, a sheet of ice crystals will collect in the air in a shape not unlike that of a smooth, vertical mirror, or looking-glass. This glass or reflector forms images of any objects that may happen to be in front of it. Its surface consists of a collection of tiny ice crystals that compose the cloud through which the balloon passed a short time ago.

"Now, if there had been formed in the space before us a surface like a huge mirror, of course, we would see the image of our balloon flung back from its surface, and, like all looking-glass images, our balloon and

ourselves would appear to be of the same size and color. Moreover, like all such images, these phantom images would appear to be situated back of the mirror, at the same distance the objects are in front of it. Consequently, everything that we did in the balloon was repeated by these images. There is only one respect in which the phantom images would differ from the original that is they would be reversed from right to left. It was this that first suggested to me the explanation of the phenomenon."

"What a bright fellow you are," said Andree. "How very simple these things are when we once understand them."

"Yes," replied Eric, "the explanation is very simple. In reality, however, parts of the explanation are by no means simple. For example, the concentric rings that surround the images like a huge picture frame, are produced by the interference of the rays of light. As you know from your study of

physics, the exact explanation of this phenomenon is by no means simple.”

The boys stood watching the curious phenomenon for some time. At last, however, the wind began to blow, thus breaking up the calm, when the phantom balloon gradually disappeared into thin air.

“We will make a careful report of this queer phenomenon,” said Andree.

“Yes,” remarked his companion, “if we ever return to Camp Henderson, we will send a report to Mr. Gideon Brown, who will be pleased to have it for publication.”

“Don’t get blue, Eric,” remarked Andree. “Don’t say, ‘if we return to Camp Henderson.’ We intend to return to Camp Henderson, so cheer up, never say die. I believe we shall work out of this scrape some how or other.”

CHAPTER VII

COLLAPSE OF THE BALLOON—EVERYTHING LOST —THE BOYS AND THEIR DOGS REACH AN UNINHABITED ISLAND

THE balloon had again reached a point dangerously near the surface of the ocean, so they threw out another quarter of ballast from one of the bags, and the balloon as before rose slowly in the air. This time, however, as they could see both from the appearance of the ice pack, as well as from an observation of the barometer, the rise was less than on former occasions.

“As you see,” remarked Eric, to his companion, “we have not risen as high above the surface of the pack as we did before.”

“And what do you infer from that,” inquired Andree, who, although well up on

physical science, was not so quick to interpret phenomena as Eric was.

“It means our balloon is leaking. We are losing gas and before long we will be obliged to abandon it, and take to the ice pack.”

Andree now began to understand and looking down at the ice pack he saw that it contained larger areas of open water. He saw that should the balloon fall, their chances of escape would be small. He was a brave lad and did not make any other move than simply to shrug his shoulders as he looked at his companion.

“Yes,” replied Eric, “I don’t like the looks of it, but do not let’s lose courage. Lots of things may happen before we are obliged to leave the balloon.”

They had some four extra bags filled with ballast that had not yet been emptied, so that if the leak did not increase, they would probably be able to keep afloat for perhaps

three or four hours longer. They proceeded to empty the remaining quarter of a bag of ballast that was in the bag, that was first partially emptied. On being relieved of this weight, the balloon again rose in the air though neither so high nor so quickly as it did before.

Eric had been thinking deeply, and when at last the balloon again came so near the surface of the ice pack, he rose for the purpose of throwing overboard some of the ballast:

“I think it will be best only to run about one-eighth of the amount of ballast we have at one time. You understand, Andree, that our balloon is leaking. We must endeavor to decrease the amount of this leakage. Now the higher the balloon rises, the greater will be the expansion of its contained gas, and, the more rapid its leakage. If, therefore, we throw overboard a smaller amount of ballast, we can remain in the air for a longer

time, owing to the decrease in the amount of leakage."

This plan being followed there were eight successive risings and fallings of the balloon, before one of the bags of ballast was completely emptied. During each emptying of the ballast of a bag, they watched the barometer. But this only greatly discouraged them, since each successive time the balloon reached a smaller elevation above the general level of the ice pack.

All this time the boys made careful examinations of the walls of the balloon, to see if they could detect any place from which the gas was leaking. None, however, were visible, but in many places the varnish had scaled off from the surface, so that the leakage was probably going on through the minute pores in the several coatings of the silk that formed the walls of the balloon. They were obliged, therefore, to permit the leakage to continue, for they could not find

among their stores any varnish for stopping it.

When they came to the second bag of ballast, they found that the decrease in weight caused by throwing one-eighth of the bag overboard was too small to cause any marked difference in the height of the balloon. They could readily see that its walls instead of being distended, were now loose or flabby, and the balloon still remained dangerously near the surface of the ice pack. It was necessary, therefore, to throw overboard one-half of the amount of ballast of one of the bags at one time, and this did not keep them up for as long a time as before.

They were now on their last bag of ballast, and this amount would at the best ensure but two successive risings of the balloon.

Andree was now surprised to see Eric busily engaged in making bundles of different articles on the balloon. These bun-

dles consisted of articles firmly tied together by long pieces of stout hempen cord of the same kind as that used for forming the network which held the car to the balloon.

“What are you doing, Eric?” asked Andree, in a surprised tone. “Tell me and I’ll help you.”

“I am so arranging our goods that when we throw them overboard and they do not fall on the ice they will float. You see in this way, should we succeed in reaching land, some of them may float after us and be cast ashore at the same place.”

“Then you think we will have to throw our goods overboard?”

“Yes, and besides that, I fear that the time is soon coming, when, if we do not leave the balloon, we will perish. I hope, however, that we may be able to reach land, or at least an ice surface. So help me to tie up the rest of our goods in bundles.”

There were four large ring buoys attached

to the sides of the balloon. They used two of these for the attachment of the heavier articles being capable of making the bundles so that they would be sufficiently light to float in the water.

The cage of the balloon, though formed of wicker work, was provided not only with wooden seats but also with a number of wooden boxes or lockers, in which some of the smaller articles were placed. Seizing a hammer, Eric commenced to take down the seats, remove the wooden lockers and employing the boards for the remaining bundles of their goods, by tying them together with the linen thread before referred to, for which several large balls had been provided. Besides this, there were two large wooden water barrels, filled with drinking water.

They were obliged to stop in their work of making packages so as to throw overboard more ballast, and had emptied their

last bag of sand. Eric now knocked out a bung near the bottom of one of the barrels, and removing a portion of the wooden grating that covered the wicker work bottom of the basket, permitted the water to run out of the bottom of the balloon.

As the water was rapidly disappearing, Eric remarked:

“Better take a good drink. We can’t tell when we’ll get another chance.” So they took a long drink and even induced their dogs to do the same.

The water in the barrels was sufficiently heavy to permit its loss to make two considerable risings of the balloon. During this time the boys succeeded in packing a portion of the remainder of their goods. As soon as one barrel was empty, they stuffed their sleeping-bag inside it, and filled the space with such delicate objects as their barometer, thermometer, sextant, and chronometers, observing to wrap carefully

each of these instruments in several layers of oiled silk they found among the articles in the balloon. They did the same thing with the other barrel, in which they packed among other things, their rifles, revolvers, and ammunition belts.

“Here is something,” said Eric, picking up a number of boxes of safety matches, “that we must take with us,” saying this he made four packages of the matches, containing a dozen boxes each, and wrapping them in the oiled silk, thrust two of the packages in the pockets of his coat, and gave the other two to Andree, who did the same thing.

It was hard work making these preparations. Every now and then, as the balloon got dangerously near the ice pack, they were obliged to stop and throw some of the packages overboard. Whenever, it was possible they threw them so that instead of falling on the ice they would fall into the water. They were especially anxious to be able to

do this in the case of the two barrels, which as soon as they had filled with their more delicate goods, they replaced the heads, and tacked oiled silk around the top, so as far as possible to prevent the water from entering.

As the balloon was again approaching the water, Eric said:

“Come and help me with this barrel, Andree,” and raising it to the top of the cage they threw it overboard in an area almost entirely free from ice. When the barrel left the balloon it was only some fifty feet above the water, the fall, however, was sufficient to give it a velocity which caused it to disappear for a moment below the surface of the water, but it soon arose to the surface, and they saw with pleasure that it floated after the balloon, apparently being carried along in that direction by the wind.

They had the same good fortune with the second barrel, which also followed in the

wake of the balloon, but, of course, at a fairly considerable distance.

“There are two more ring-buoys,” said Andree, “why not use them?”

“We shall,” replied Eric, “we will need them ourselves when we leave the balloon.”

While the making of the goods into bundles was going on, they gained considerable time by cutting the hempen cable that held the heavy anchor employed for attaching the balloon to the ground when it was necessary to descend. It might, perhaps, have been better policy to have thrown this overboard at an earlier hour, but Eric, knowing how dangerous it is to the occupants of a balloon to permit it to be dragged over a rough surface had kept the anchor until almost the last minute. As the anchor fell they were horrified to see that it carried with it the two ring-buoys that they had retained for their own use. Relieved of this heavy weight, the balloon again mounted in

the air, but this time very sluggishly since the amount of gas it contained had now decreased to such an extent that the walls of the balloon were shrivelled like the skin of an apple that had lost a large portion of its juice by evaporation.

They had now thrown almost everything overboard. Eric, who was busily engaged in cutting a canvas cloth into two long strips, said to Andree:

“Look over the side of the balloon, please. Are we sinking or rising?” This was shortly after the anchor had been cut loose.

“We are slowly sinking,” was the reply.

“How long do you think we will have before reaching the water?”

“Perhaps about ten minutes,” was the reply.

“That will be sufficient,” said Eric.

“Come here and help me with the dogs.”

Andree now saw what Eric was doing. He had securely tied one end of each of four

stout strips of cloth to a part of the cordage that passed over the top of the balloon holding the basket in place. He then passed two of the strips beneath the belly of one of the dogs, and then commanding the dog to stand, secured the other ends to the cordage. Andree did the same for the other dog. The poor animals did not understand what was going to be done with them, but they had confidence in their masters, and stood patiently awaiting whatever might happen, for they seemed to understand that they were in a dangerous position, but were satisfied as long as they were with their masters.

The balloon was now rapidly falling, and would soon reach a piece of open water that stretched as far as the eye could see.

“Draw your knife,” said Eric to Andree, “and help me cut the cords that hold the basket of the balloon to the network.”

It was their last resource.

Climbing into the network, and hanging to its sides with one hand, they commenced severing the cords that held the basket, which at last fell with a crash into the water with the two dogs suspended by the canvas bags to the network, and the boys clinging to the network above the dogs talking to the animals so as to reassure them and keep them from struggling.

“Is there any land in sight?” inquired Eric anxiously. “I cannot see anything from this side of the balloon.”

“Yes,” replied Andree. “As well as I can see there is a small island lying toward the northeast, directly in the path of our balloon.”

“Then we must keep up for as long a time as possible.”

It did not seem, however, that it would be possible to keep the balloon up much longer, for it was rapidly falling toward the water, and at last reached the surface of the water,

immersing the dogs and threatening to drown them by settling over them.

“The only chance for the poor animals is to cut them loose,” said Eric, severing one end of the canvas cloth that attached Snowflake to the rigging, and calling to Andree to do the same for Hector.

The animals rolled out of the supporting bands of cloth when the balloon released of their great weight bounded upwards into the air.

Eric had used excellent judgment, not only in the way he supported the dogs to the rigging, but especially in the manner of releasing them, since by cutting one end of the supporting cloth, the bands slipped from under the animals entirely freeing and precipitating them into the water. They were apparently uninjured, and began swimming vigorously after the balloon, loudly barking as though the entire proceeding was a lark to be enjoyed to the full.

As the balloon mounted in the air, Eric cried to his companion:

“Can you still see the island?”

“Yes,” was the reply, “we are going directly toward it, although very slowly.”

“About how far is it from us?” was the inquiry.

“Not quite a mile,” was the reply.

“Then,” said Eric, “if the balloon will float long enough we will be able to reach it.”

It did not appear, however, that the balloon could possibly remain much longer in the air, for a rent had now opened in one of its sides out of which they could hear the gas rushing.

“Look lively, Andree,” said Eric. “As soon as the balloon strikes the water, endeavor to prevent its folds from covering you. Jump as soon as the balloon strikes the water and swim away from it.”

This was excellent advice, and was strictly

followed. When the balloon finally touched the surface, they both dove into the water from the rigging, and succeeded in swimming away from all that was left of the balloon. As soon as the balloon reached the surface of the ocean, it commenced a series of beatings or thrashings against the water in a manner well known to aëronauts; for as soon as the lower parts touched the water and were buoyed up by it, the balloon being to this extent relieved of its weight would rise momentarily in the air, dragging a portion of its immersed surface out of the water, would again owing to its increased weight fall to the surface, where it would repeat the thrashing movement.

The boys struck out through the cold icy water toward the island. Andree, who was the better swimmer, insisted that Eric should every now and then rest by laying his hand lightly on his shoulder.

In this manner they kept swimming to-

ward the island for about a quarter of an hour, and at last both became so exhausted that it was evident that, unless something happened and happened quickly, they would both be drowned.

“Andree,” said Eric, “you cannot possibly save my life. I beg you to leave me here and try to save yourself. There is no use in both of us being drowned.”

“Eric,” returned Andree, “if there is any drowning, we’ll both drown together. I do not care to reach the island, unless I can save your life. Let us rest on the water as well as we can, and not expend our strength in trying to reach the island. Perhaps, after we rest, we may be able to go on for awhile. See, we are much nearer the island than we were before.”

The boys endeavored to rest in this way, but it was clear that they had about expended all their strength.

“Good bye, Andree,” said Eric, “if you

reach the island, and afterwards see uncle Horace, or Prof. Kransen tell them that I died thinking of their great kindness to me."

At this critical moment they heard something that gave them strength to remain above the water for a few moments longer. This was the barking of Hector and Snowflake, who were now seen swimming rapidly toward them.

The intelligent animals, who saw the danger in which their masters were placed, seized them by the collars of their coats, held their heads above the water and continued swimming with a strong steady stroke toward the island, which they at last reached, and dragging their masters after them laid them down on a portion of the island that had a fairly thick covering of dried moss.

But neither of the boys appeared to have any life remaining in them, and they lay on

the ground as if they were dead. The poor dogs, which at first believed their masters were actually dead, began to moan and cry as if their hearts would break. This finally resulted in Eric's awakening. Looking around and seeing Snowflake standing beside him and licking his face, he said:

"Thank you, Snowflake, you have saved my life. I shall never forget this."

The animal was now almost beside itself with joy, and began dancing and jumping around Eric, uttering a series of yells that at last awakened Andree, when Hector began to repeat all the extravagant manifestations of joy that Snowflake had exhibited.

As soon as Andree saw that Eric was alive, he said:

"Let us thank God, Eric, that our lives have been spared," and kneeling down they gave thanks to God for the great mercies He had shown them.

CHAPTER VIII

BALLOON ISLAND

IT is true the boys had escaped the perils of a rapidly leaking balloon, and had reached a small island in the far north. But their future did not look very bright. They were wet to the skin, and had no food, no arms, with which to procure food or defend themselves, and had practically nothing with them but the clothes they had on.

It was Eric who first spoke:

“Well, Andree,” he said “let’s get to work. There is much to do. Suppose we begin by taking an account of what we have with us besides our clothes. Then we must get dry, and look for food and shelter.”

“It won’t take long as far as I am concerned,” said Andree, “to tell what I have.

To begin with, I have two packages of safety matches."

"And so have I," was the reply. "Let's see if they're worth anything. I hope they have not been injured by the water."

Carefully removing the oiled silk, which they had wrapped around the boxes, they were relieved to find that the water had not penetrated the boxes, so that the matches were not at all injured.

"That is fortunate to begin with," remarked Andree. "Now let's turn out our pockets and see what else we have in them."

Going through all his pockets, Eric found that they contained only a pocket knife, a lead pencil, and a small note book.

After a similar search, Andree remarked:

"I am richer than you, Eric. Besides a large penknife, a lead pencil and a note book, I have a small toothpick."

It may be a cause for surprise that they should have retained their note books and

lead pencils, but they were assistant reporters of the expedition, and these books contained some twenty-five or thirty pages of notes that they had made in the balloon, of the general appearance of the ice pack and other interesting facts.

“Let’s look further,” said Eric, “we may have something else.”

The most careful searching failed to discover anything else. They had thrown overboard all their other possessions in order to lighten the balloon but could only feel thankful since otherwise they must have perished.

“But,” said Eric, “we must not forget our dogs. We have brought them with us,” he continued in a laughing tone, for he saw that Andree was worried, “or rather, they brought us with them. We have you, have we not?” he inquired, addressing himself to the dogs, which immediately answered by a wonderful assortment of cries, and waggings of the tails, as much as to say:

“Yes, you have us, and we are very glad to be here.”

“This reminds me of ‘Puss in Boots,’ in the fairy story,” said Eric, wishing to raise Andree’s spirits. “You remember, Andree, that a certain miller had three sons. When he died and his will was read, it was found that he had left the mill to his eldest son, his horse to the second son, and his cat to the youngest son. Now the mill, the horse, and the cat were everything he had owned. When the youngest son heard the will read, he said: ‘I am left in a poor condition. When I have eaten my cat for dinner, sold its skin to make a pair of gloves, or a muff, I may as well die, for I shall soon starve to death.’

“When the cat heard what its master said, it remarked: ‘Look after me a little, master. Get me a pair of boots, and I’ll show you that you have in me a very valuable legacy.’ ”

Andree laughed when Eric had finished this story and said:

“You are a jolly fellow, Eric, and braver than I am. Yes,” he continued, resolutely shaking off his low spirits, “we certainly have two very valuable pieces of property in our dogs.” And then turning to the dogs, he said:

“We will take care of you, and you will look after us, won’t you, doggies?”

If the animals had really understood what had been said to them, they could not have wagged their tails more expressively.

“What shall we do next?” inquired Andree.

“Why dry our clothes as best we can, so let’s make a fire. There’s a lot of moss and dried grass here. It won’t burn very long, but we can keep it going by adding additional material. The air is fairly warm, so I think it will be safe to take off our clothes, wring the water out of them, and spread

them out on the rocks where the heat of the fire will dry them.”

It was fairly cold even in the July air, so that when completely undressed, they felt chilly, but the brisk exercise they were compelled to take to keep the fire going, as well as the heat of the fire itself, when they stood alongside of it, prevented them from suffering much. When their clothes were completely dried, they dressed and found the warm, dry clothes very comfortable.

“I won’t ask what is best to do next,” remarked Andree, “for if you are as hungry as I am, Eric, you will agree that we must now try to find something to eat.”

“And something to drink,” said Eric. “Water is as important as food. Indeed, it is one of our most important articles of food, as I need not tell you who are so well up in chemistry. But before we do this,” he continued, “let us put all our matches away except one box apiece.”

After some searching they found a water-tight crevice in the vertical face of the rock near them. Placing the boxes in this opening with their covering of oiled silk, they stopped up the front of the opening as well as they could with several tightly fitting pieces of stones.

“We are almost certain,” remarked Andree, “to find birds on this island, and since this is the breeding season, there should be quantities of eggs.”

They had landed on the southeastern coast of the island, which here was very narrow, so they determined to follow the eastern coast.

At first they saw nothing in the way of birds, and were beginning to fear there might be none on the island. Before long, Eric, caught the reflection of the sunlight from a pool of water about a hundred feet from the coast, and walking near it, he saw that it came from a spring of clear water

bubbling up from the bottom of a sand covered basin.

“Here is something as important as birds.”

Finding the water fresh and cool, they took a good drink, in which they were joined by their dogs. Continuing along the coast they were at length greatly relieved to see a flock of eider-duck flying along the northern coast of the island. They could see along this coast for several miles toward the west. There were multitudes of different kinds of birds, among which, besides the eider-duck, they recognized long-tailed ducks, brent geese, and black- and red-throated divers.

There are probably few portions of the coasts of the Arctic regions where some species of birds are not found during the brief spring and summer, for the speed of some of these birds is so great that they can readily make considerable changes in the areas

from which they obtain their food supplies. As is well known there are species of geese that can fly at a speed of from thirty-five to fifty miles per hour. During their breeding season such birds migrate to some distant coast in the far north where they are free from most of their enemies.

The birds were not at all frightened by the boys, so by lying down quietly near the nests of some of the eider-ducks, and waiting until the birds flew near them, they succeeded in capturing three large-sized birds. Moreover, they had no difficulty in obtaining several dozens of fresh goose eggs which they found fresh and warm in the nests.

They then built a stone stove and the birds were soon roasting on it. The dogs enjoyed the entrails of the birds, as well as a fair share of the cooked meat.

“Eric,” said Andree, “let’s give the island a name. It will be more convenient when we are speaking of it.”

“Have you any name to propose?” inquired Eric.

“How would Balloon Island do?”

“Capital,” said Eric. “We will call the island Balloon Island, and will take possession of it in the name of the United States of America.” Then taking off a white silk handkerchief he had employed for a necktie, and rapidly drawing on its surface thirteen stripes and forty-five stars with his lead pencil, he said:

“This will represent the United States flag.” Attaching the same to a crevice in a vertical wall of rock that was near their fire, he continued: “I hereby take possession of this island in the name of the United States of America.”

“Breakfast has made me thirsty,” remarked Andree. “Let’s go to the spring and get another drink of water and then continue our examination of this part of the coast.”

As they followed the northern coast toward the west they could distinguish several places where narrow valleys sloped gently upwards toward the northwest. If the island contained much water, its streams should be found flowing through these valleys.

“We must keep on the lookout for some kind of shelter,” said Eric. “While I am not now troubled about the question of shelter, since the July air is fairly warm, and we have our Newfoundland dogs to cover us should it become chilly, yet if we are obliged to remain on the island until the setting in of the winter, it will be necessary to find some permanent shelter. It will be odd if we cannot find a suitable shelter for ourselves, and where we can also stow our food supplies. At present we are certain of an abundant supply of birds and eggs. As soon as the cold weather sets in, the birds will fly to the south. We must, therefore,

collect as large supplies of food as possible, and store them where they will keep in fairly good condition. If we do this we ought not to suffer for food."

While crossing a part of the island near the northern shore, they noticed that in certain places the grass and moss grew in especially large quantities. Andree asked Eric if he could explain why the growth was more luxuriant in these places.

"I suppose," replied Eric, "the fertilizing of the soil here is due to the dung of the birds. As you know, the rich guano deposits on the almost rainless western coast of Peru are formed by the excrements of the birds that breed there. I think, too, that these places lie on the south side of some elevation where they are sheltered from the cold winds from the north."

As they were approaching the northern coast they heard the characteristic bellows and barkings of the walrus. Creeping

near the coast, and hiding back of some rocks, they saw a herd of some twelve walruses sporting in the water. The boys remained watching them for nearly ten minutes, when rising to go, the walruses discovered them and after looking up in surprise for a few moments disappeared below the surface of the water.

“If we had our rifles with us,” remarked Eric, “one of these large animals would be very valuable, since it would provide a plentiful supply of meat for food, while its blubber would yield a supply of fuel for our fires and lamps.”

As they walked away they again heard the cries of the walrus. Now, however, instead of the pleased cries of animals sporting in the water, the cries seemed to indicate that something had occurred to make them very angry, for they took on a furious tone. Concluding that something unusual had taken place, they stealthily returned to the

rocks, and, again hiding, saw a curious spectacle. About ten of the herd had collected on a floating cake of ice, near the shore. Between this cake and the shore were two large male walruses, or bulls. The boys recognized one of these as the leader of the herd they had been watching. The other, who was somewhat larger than the leader, they did not remember seeing before, and correctly inferred that he was an intruder, and that the leader of the herd was furiously fighting to drive him away from that portion of the coast. The two males were rushing savagely at each other, inflicting vicious wounds with their great ivory tusks. It was surprising to note the rapidity with which the huge animals moved through the water, for, though exceedingly clumsy on land, yet in the water they are capable of moving at a high speed.

The fighters employed their great ivory tusks against each other in two different

ways. Sometimes one of the animals would approach its adversary, and raising itself in the water, would strike its opponent a sharp downward blow, burying its tusks in the hide of its opponent, and then moving rapidly downwards so as to make a cutting wound. The most terrible blows, however, were caused by the animals swimming below each other and striking vicious upward blows with their tusks. The water soon became dyed a deep red with the copious streams of blood that issued from these wounds.

When it became evident that the intruder was the stronger of the two, and was getting the advantage of the leader of the herd, there was a great commotion among the animals on the cake of ice. They were evidently instructing one of the bulls, who was on the cake of ice with them, to go to the help of their leader; for, leaving the cake, he dove through the water, and coming up be-

low the body of the intruder, dug his tusks in his belly and almost disemboweled him by a rapid succession of powerful upward strokes.

This timely aid saved the day for the leader of the herd, who, continuing savagely his attack on the intruder, dove beneath his now almost inanimate body, and repeated the savage upward strokes, so that the animal soon died and, turning belly upwards, floated on the surface.

“It’s lucky,” said Andree, “he has been almost cut in pieces. Otherwise his body would have been lost by sinking in the water.”

“How shall we manage to get the great carcass ashore?” inquired Eric. “We must get it somehow, and yet it is too huge for us to handle.”

“I hardly know,” replied Andree. “But let’s wait awhile, perhaps it may float in toward shore.”

They stood for nearly fifteen minutes watching the huge floating mass. They could see that it was being slowly carried toward the shore, and in fifteen minutes more it had reached the shallow water near where they were standing.

“Now,” said Eric, “let’s take off our clothes again, wade out and drag it in as much nearer as we can.”

It was cold work, as the boys, after stripping, waded in the water.

At first they had but little difficulty in pulling it in, since they were aided by the buoyancy of the water. When, however, the body reached shallow water, they found it impossible to move the animal farther. Returning therefore to the shore for their pocket knives, they again waded out and began the disagreeable work of cutting the flesh and blubber into huge strips which they carried to the shore and threw down on the rocks near the water.

The severe work which they were performing, together with the warmth in the body of the animal, prevented their suffering much from the cold.

When at last they succeeded in cutting up the animal they endeavored to remove the two ivory tusks, but found this too hard a task.

“We must let them lie here,” remarked Eric. “Either the birds or small animalculæ will remove the rest of the flesh. We will come back and remove the tusks some other time.”

They had intended leaving the pieces of walrus meat and the blubber on the pile of rocks on which they had thrown them, until they returned from making an examination of the island. This, however, they found to be impracticable, since great numbers of sea-gulls and other birds began greedily feeding on the flesh and blubber. The birds were so busily engaged in this

work that the boys had difficulty in driving them away. Indeed, in doing this, they killed some six of the largest. As there was a number of large flat stones in the neighborhood, they rapidly built a rough cache in which they deposited the flesh and blubber, covering the mass with large flat stones, and thus prevented the birds from stealing all the meat and blubber.

When this work was completed, the wisdom of undressing before beginning this disagreeable task, was evident. They were, indeed, dirty looking boys, their bodies being almost covered from head to foot with patches of blood and walrus skin.

“Let’s go down to the water and wash ourselves, and then get on our clothes,” said Andree.

But while the blood and the smaller fragments of flesh and blubber were easily removed, yet the walrus grease was a different thing.

“Wouldn’t you like a good cake of soap, Andree?” inquired Eric, smiling.

“I would, indeed,” remarked Andree, “where is the nearest store, Eric?” he inquired.

“I don’t know,” was the reply, “unless it is at Camp Henderson. But no,” he continued, correcting himself, “I’m wrong. The nearest store where we can get a cake of soap I guess would be Hanscombe Island, unless, indeed, Kransen Island has some soap in its supplies. I say, Andree,” he continued, “wouldn’t a good cake of ivory soap, and the pool of hot water in the lava cave at Kransen Island, make a great combination?”

“They certainly would,” was Andree’s reply with a wry face at his comrade. “But as we can not go to either of the stores, and are not in the lava cave at Kransen Island, instead of standing here shivering in the cold, come and let me rub some of this

soft mud over you. It will absorb a part of the grease and make you fairly clean.”

“Very well,” said Eric, laughing, “as there is plenty of water and I can wash it off afterwards, you may do so. Otherwise, I would be much dirtier after washing than before.”

Andree coated his companion with the dark colored mud, rubbing it briskly until he closely resembled a Fijii Islander. He then said:

“Now give me a rub.”

After a plunge in the ocean, and a thorough rubbing of their bodies, they found that the walrus oil had been almost entirely removed.

Putting on their clothes, they continued their examination of the island.

As they walked along the coast farther toward the west, both the number and variety of the birds increased. This part of the coast was evidently a great breeding place,

so that during the few brief months of summer there should be no difficulty in obtaining supplies of food, as well as great quantities of eggs, and, since they now had a fairly large supply of walrus blubber for fuel, they would have oil for their lamps and stoves.

When they reached a part of the coast about one-third the length of the island, they came to the mouth of a fairly large stream of water that here discharged its waters into the ocean. The stream was too wide at its mouth to permit them readily to cross it. Following it a short distance along its banks for about half a mile, they readily crossed on a number of flat stones that projected above the water.

Farther along the coast they came to another stream which was evidently the principal drainage system of the island. The mouth of this stream was so wide, and the volume of water so great, that they could not

pass over to the other side, so they determined to follow its banks up toward the highlands in the northwestern parts of the island, where the stream evidently had its source.

Before leaving the mouth of the river, they rested for a few moments to make some brief notes as to the kind of birds they had seen during their walk along the coast. Besides the birds already mentioned, there were great numbers of snow-buntings or the Arctic singing birds, a bird whose sweet notes are especially pleasant when being heard in so bleak a portion of the world. Besides these there were also many auks.

They noted that even in this distant northern region the birds had not been able entirely to escape their enemies; for, there were various birds of prey that lived on the weaker birds. The most important of these predatory birds was the sea-eagle. This bird was a great enemy of birds like the divers.

While seated at the mouth of the river they had an opportunity of watching a sea-eagle suddenly sweep down and endeavor to capture a diver. The diver at first escaped and sought refuge by plunging several times beneath the water. Its pursuer, however, did not seem to worry itself. It knew by experience that it was only a question of time when the bird would be obliged to rise to the surface. This it did and at last, when too exhausted to return suddenly was seized by its enemy and dragged away to its death.

As the day was now far spent, they decided to retrace their steps, and return to the place they had buried their birds and eggs. After reaching this place they took with them a piece of blubber for fuel, they returned to the spot where they had built their fire, and relighting it, soon had the birds roasting. They then buried some of the eggs in the smouldering embers, and en-

joyed an excellent meal of roast birds and eggs.

After supper the boys sat for awhile looking out over the ocean in the direction of Grant Land and Camp Henderson. In their imagination they could see the comfortable quarters of Camp Henderson, as well as their friends, sorrowing, they felt sure, at their sudden disappearance, and possibly even mourning them as dead.

As they sat talking, they discussed the chances of aid being sent them either from Camp Henderson or from Hanscombe Island. Of course, this depended entirely on whether their friends at Camp Henderson were aware of their escape in the balloon. If they knew of this, of course, they could send word by wireless to the people on Hanscombe Island.

At last Eric, looking up, and seeing Andree's troubled countenance, said, in an assumed merry tone:

“Don’t look so glum, my boy. We are much more comfortable here than we would have been were we still swimming in the cold water toward land.”

“All right,” replied Andree. “Now I’ll try to be good and make the best of matters as they stand. Let’s turn in. There is a hard day’s work before us to-morrow, and we need rest.” So lying down with the two dogs beside them, the boys soon fell asleep. At first their dogs kept watch for the purpose of keeping guard over their masters, but in an hour or so, the dogs followed their masters to dreamland. So passed the first night on Balloon Island.

CHAPTER IX

FURTHER EXAMINATION OF BALLOON ISLAND

THEY were awakened early next morning by their faithful dogs touching them gently with their paws and then, failing to attract their attention, licking their faces.

“Hello,” said Eric, who was the first to awaken, seeing the liberty Snowflake was taking with him, “what’s the matter, old girl? Getting hungry? Do you want us to get up and get breakfast ready?”

The dog tried to indicate as well as she could that that was just what she wanted.

Calling Andree, whom Hector had been unable to awaken, they were soon up, and bathing at the spring, prepared breakfast by roasting a number of eggs and toasting

some of the steaks from the breasts of the birds, for they did not take the time necessary for roasting a whole bird.

“We’ll soon get tired of roast birds,” said Eric. “Let’s contrive some plan for having boiled birds, boiled eggs, or now and then a pot of walrus or bird soup. A mixture of walrus and bird flesh, with a little rich bird fat, instead of butter, a few raw eggs stirred through the mixture when nearly done, should make a fairly good soup.”

“The idea is capital,” said Andree. “You make my mouth water, but where can we get a pot in which to boil the soup?”

“Should we be fortunate enough to discover a deposit of soapstone on the island, we could easily fashion pieces of it into kettles, pots, or pans; for, as you know, soapstone is soft and easily shaped and will stand the heat of a fire without being destroyed.”

After a hearty breakfast, the boys started out with their dogs, for a further explora-

tion of the island. This time, however, they determined to walk along the southern coast. They found the water on this side of the island colder than on the northern coast. It was, however, except here and there, where there were several cakes of floating ice to be seen, comparatively free from large ice masses. Under the influence of the strong south wind that was still blowing, large waves were coming in from the ocean and striking against the coast. The water here was fairly deep, and, except at the extreme southeast of the island where they had landed, a high precipice of light colored rock rose almost vertically out of the water. Its height near the southeastern coast was only a few feet above the level of the sea, but gradually rose toward the northwest to a greater height. Indeed, on the greater part of the southern coast the vertical wall rose so abruptly from the water that, except here and there, it was impossi-

ble to walk along the sea, except on the top of the headland.

Noting the force with which the waves were breaking against the face of the precipice, Eric remarked:

“Had we reached land at this point, we would undoubtedly have perished.”

The island was highest at the northwestern extremity where the precipice reached an elevation of, perhaps, 1,200 feet. But near the extreme corner, although the precipitous wall still remained, yet, at a distance of about two hundred feet above the sea, it descended by a gentle slope to the coast.

The boys walked along the top of the headland as it gradually ascended to the west. On reaching the highest point near the southwestern end of the island, and looking across the island toward the north they could obtain an excellent idea of the general extent and character of the island, which extended in a general east and west direction

for about five and a-half miles, and in a north and south direction for from two to two and a-half miles. The top of the headland formed a nearly level plateau that was in places from one-sixteenth to one-eighth of a mile in breadth.

Near the northern edge of the plateau, at a point near the middle of the island, they were fortunate in finding an excellent deposit of soapstone. Selecting several fine specimens of a size suitable for the shaping of pots, kettles and pans, they placed them where they could readily get them on their return to camp.

Continuing toward the extreme north-western coast of the island they reached a point where the plateau gradually ascended to the highest point of land.

Climbing to the summit at this point they found that it had an elevation of what they judged to be, perhaps, fifteen hundred feet above the level of the sea.

“Eric,” said Andree, “let’s name some of the different parts of the island we can see from here. Suppose we begin with the largest of the two streams. I name it Eric River,” said Andree. Now what shall we call the mountain?”

“I name it Mt. Andree,” said Eric, “and the point on the headland where we landed?”

“Let’s call it Balloon Point, remarked Andree.

“And the smaller river?”

“Suppose we call it the Hjalmar River, after our friend, the boatswain.”

The air being extremely clear, they eagerly scanned the horizon in all directions to see if there were other land masses in sight, but nothing could be seen, except toward the northeast, where Eric saw a dim line that he thought might be a land mass of considerable size.

“Look, Andree,” he said. “Can you see”

anything in that direction?" pointing to the northeast.

"I see a grayish streak along the horizon, but whether it be land or not, I cannot say."

"If it is land we may reach it some of these days," said Eric.

"What name shall we give to the broad plateau that extends along nearly the entire southern edge of the island?"

"Suppose we call it the Plateau Road. It would form an excellent place for a road though it's quite a stretch for the imagination to conceive of one here."

"Now," said Eric, "let's see if we can safely descend to the coast."

In order to avoid the steep precipice on the northern coast of the island, they descended the western slope of Mt. Andree, which inclined gently toward the ocean, and then walking around to the southwestern coast, they reached the foot of the precipice, which at this place was about nine hundred

feet high. Its base, however, was about two hundred feet above the level of the sea.

They were greatly pleased to find a spring of clear water near the western end of the precipice.

“What kind of rock is this, Andree?” asked Eric, knowing that his friend’s chemical studies had made him a fairly good mineralogist.

“It looks like limestone,” was the reply, and then taking out his pocket knife and finding that he could readily scratch its surface, he said:

“Yes, it is a mass of limestone.”

“If I correctly remember, Andree,” said Eric, “the little geology I studied while in New York City, masses of limestone are apt to contain caves or caverns, formed by the water slowly dissolving out the rock. Wouldn’t it be jolly if we could find a good sized cave somewhere in the face of this wall? This would be a splendid

place for a shelter. Besides, the northern coast, from which we must hope to obtain our food supply, is readily accessible from this part of the island. Moreover, the precipice faces the south, and would, therefore, form an excellent place from which we could watch for any balloon that might come to our rescue.

“That’s a great idea, Eric,” replied Andree. “Let’s look for a cave, for even if it should be only a small one, we might be able to make fairly comfortable quarters in it.”

At first the face of this part of the precipice appeared to be absolutely free from any openings or cavities. At last, however, not far from the stream of water, they found a cave-like opening that extended into the mass of limestone for a distance of, perhaps, fifty feet. Entering the cave, they found that it was fairly dry, since its opening was sufficiently large to permit the free entrance of the air, and indeed, to some extent, the

sunshine. On each side of the main opening the cave extended for a distance of about one hundred feet, with, however, a much lower roof.

At a distance of about five hundred feet toward the east they found another, but much smaller, cave.

“Suppose we take the larger cave for our permanent shelter,” said Eric. “It will be all right for this purpose.”

“Agreed,” replied Andree, “I do not think we could easily find a better place.”

“Then let us clean up the cave, and make it as comfortable as possible.”

The examination of the cave showed that the floor was covered with a fine sand.

“I wonder how this sand got here,” said Eric, carefully examining it. “It seems to have come from the sea. It might have been blown here by the wind, but I don’t understand how the roof of the cave should be so smooth and should be so free from stalac-

tites, or pendants of limestone, nor, indeed, how the floor of the cave should be so level, unless, indeed, this layer of sand is very thick, for limestone caves, that have been eaten out by fresh water slowly trickling through from above, always contain besides the stalactites, mounds or hillocks called stalagmites immediately below them, that have been formed by the heaping up of limestone deposited from the drippings of water."

The problem was evidently difficult for Eric to understand, for he continued in silence for ten minutes or longer. At last, however, he suddenly looked up and said:

"Andree, I think I have solved the problem. This end of the island has been slowly rising. When our cave was formed, this part of the limestone cliff was directly exposed to the waves of the ocean. It was these waves that hollowed out the cavity, and, at the same time, left the floor covered

with sand. If I am right we shall probably find on the walls of the cave smaller holes or spaces filled with the same kind of sand.”

“If that is so,” remarked Andree, “and these openings are not too high above the floor, they will form jolly cupboards or closets, in which we can keep the food supplies we may get.”

An examination of the walls of the cave disclosed a number of sand-filled cavities, so that by clearing out those that were only about five feet above the floor of the cave, they thus found themselves provided with a number of excellent closets in the solid rock.

They now commenced collecting a quantity of dry moss and grass to form a bed in the cave. They cleared out the opening of the spring, lining its bottom with flat stones, leaving it so that a fairly large basin of clear water could collect in it. They then commenced the more laborious task of bringing to their cave the various things

they had found and storing them away in the cave.

The birds and the birds' eggs were carefully placed in some of the stone cupboards. The matches were stored in a small dry opening at a distance from what they would probably use as a fire-place.

The most difficult part of the work consisted in carrying the blubber and the walrus meat to the cave. They stored the blubber in the small cave to the east. The walrus meat was cut into strips and exposed to the air by attaching it to the walls of the cliff by driving stone wedges into crevices. Here, under the influence of the air, it soon dried sufficiently to remain fresh for a long time.

The second day after the discovery of the cave a dismal fog set in, but they spent the time profitably shaping the pieces of soapstone into rough pots, kettles and other cooking utensils. They also formed several

lamps of the same material, which, when supplied with a wick of dried moss and pieces of blubber for oil, formed admirable sources of light, as well as heat. By means of these stoves they could readily cook or fry steaks of birds, or pieces of walrus meat. Eric fashioned an article which he called a frying pan. This consisted of a flat surface of soapstone provided with narrow sides. Employing the fat of the birds in the place of lard or butter, they were able by its use to obtain fried eggs as well as omelets.

As they sat listening to the waves break against the coast, Eric remarked:

“Andree, let’s spend a part of to-morrow examining the southern portion of the coast that we can reach. We must keep on the outlook in order to see whether any of the bundles of the goods we threw into the ocean from the ballóon have been thrown by the waves on the coast.”

“It would be great, Eric,” exclaimed Andree, “if some of those things should come our way, especially the barrels containing our guns, revolvers, ammunition, and other articles.”

“Yes,” remarked Eric, “that would be fine, especially if we get our rifles, provided, of course, the ammunition reached us in good condition.”

“Do you think there is any chance of these articles reaching the island?” inquired Andree.

“It is impossible to say, since the distance to the island was considerable. Many of these bundles may have sunk and others may have failed to reach our island. I think, however, that at least some of the goods may come as far as this.”

CHAPTER X

JETSAM AND FLOTSAM

IT had stopped raining while the boys were sleeping, so that when they arose in the morning the sky was clear and the sun was shining brightly. After breakfast they walked along the beach in front of the cave house, but nothing in the way of the floating parcels they had thrown out of the balloon was to be seen. The wind, however, was still blowing from the south, although the waves had decreased considerably in strength.

“This doesn’t look very promising,” remarked Andree.

“Oh, I don’t know,” replied his companion. “Remember, this is but a small part of the coast. Let’s examine the beach at Bal-

loon Point, it is where we landed and, it seems to me, is the most probable place to recover the flotsam.”

“That’s a new word for me, Eric. What does it mean?”

“It is a legal word, I remember Uncle Horace explaining to me one day in New York City, when I had been reading a newspaper report of a maritime case concerning the ownership of merchandise, picked up while floating in the sea after a severe storm. The word flotsam means any goods found floating in the sea, into which they have either been purposely thrown in order to lighten a vessel, when in danger of shipwreck, washed overboard during a storm, or that have gone down with a sinking ship, but afterwards floated on the surface. The word jetsam is used in an opposite sense to the word flotsam, and indicates any of the above articles, that, owing to their weight, have sunk and remained on the bottom. Ac-

according to the law any such articles if picked up by others, can still be claimed by the owners of the vessel, provided a sum of money known as salvage be paid for services rendered in their recovery."

"Thank you, Eric. I understand. I fear that our goods have by this time gone to the bottom, and have become in a legal sense, jetsam rather than flotsam."

"We won't give up so soon, Andree. Let's climb to the top of the plateau, and walk along the headland to Balloon Point. I should not be surprised if we found some of the flotsam there."

As they were nearing Balloon Point, their dogs commenced barking, not as if angry, but as if greatly pleased, and ran ahead of them toward the beach.

"They smell something they like," remarked Eric.

On reaching the beach the boys found each of the dogs tugging away at a parcel that

had been washed up from the water. They were smelling certain portions of these parcels, as though greatly pleased at the contents. As the boys approached them they looked up at them, wagging their tails, as much as to say:

“Won’t you let us have some of this?”

This part of the beach was strewn with a number of packages they recognized as those they had thrown out of the balloon, and began to draw them up on the beach, far above the water line.

“Now let’s untie the bundles and see what things the sea has cast up for us.”

Sitting down by the side of their goods, Andree said:

“What parcel shall we begin with, Eric?”

“Don’t ask me that question, Andree; ask the dogs,” remarked the other in a laughing tone.

“Oh, I understand, Eric,” said Andree; for looking, he saw that the dogs were still

smelling at the parcels that each of them had run to on reaching the beach. Every now and then the intelligent animals would look at them and barking joyously as if to say:

“Please begin with this bundle, and untie what we are smelling at.”

“All right, doggies,” said Eric, laughing, “we will begin at the parcels you were the first to discover.”

The parcels or packages referred to were attached to the two large ring-buoys, which, owing to their peculiar construction, were able to float a considerable weight. The parts of the parcels at which the dogs had been smelling were found to contain several twenty-five-pound packages of dog-biscuits.

These packages, as indeed, all the packages of goods stowed away in the balloon, were ingeniously constructed, for the express purpose of preventing the entrance of water. They consisted of pasteboard boxes, that had been rendered impervious to

water by soaking in melted paraffine. Moreover, the boxes were made of double thickness, filled with corrugated pasteboard, which not only stiffened them, but also greatly decreased their weight.

“Let’s undo one of the packages,” said Andree, “and give the dogs a treat. We can then, at the same time, see the condition in which these goods may be.”

Opening the packages they found that, owing to its ingenious construction, the biscuits were almost as dry as the day on which they had been sealed up.

Tossing a biscuit apiece to each of the dogs they said:

“There, sample those, and tell us whether you think they are good.”

The dogs did not think it necessary to lose the use of their mouths while feeding, and yet, at the same time, being well brought up animals, and, moreover, grateful to their masters, although they kept on eating, en-

deavored to say by the waggings of their tails:

“The samples are good. We are ready for another whenever you see fit to give it to us.”

Besides the dog biscuits, there were similar pasteboard boxes containing small packages of black breakfast tea, as well as boxes filled with hermetically sealed cans of dried vegetables and evaporated fruits, or fruits from which nearly all the water had been removed by placing them in a vacuous space while exposed to a moderately high temperature.

It will be remembered that the larger packages of goods had been tightly secured to the buoys, wooden planks and other light objects, by wrapping long pieces of the hempen rope used for the net-work that passed over the top of the balloon, and employed for holding the basket of the balloon in place. They were careful not to cut this

rope, or destroy it, since they knew it would be extremely valuable during their sojourn on the island.

“Let us now see what the other buoy-package contains,” cried Eric. Here they found, besides the package of dog-biscuits, several twenty-five-pound parcels of roast coffee packed in the hermetically sealed pasteboard boxes, two twenty-five-pound packages of sweet chocolate.

The boys were not unlike the dogs, when they discovered the packages of chocolate.

“Eric,” said Andree, “if I had a tail I would wag it like the dogs did, to suggest the advisability of our sampling the chocolate.”

“Oh, I am willing to take the wagging of your jaws instead of your tail,” remarked his companion, as he proceeded to open a package of the sweet chocolate. Owing to the peculiar character of the pasteboard box, it was found that the chocolate was perfectly dry.

Another package which they undid was found to contain pasteboard boxes of oatmeal, hominy grits, water crackers, graham biscuits, each in ten-pound packages. They were especially pleased to see in some smaller packages, several parcels of dried herbs, such as thyme, sage, including packages of black and red pepper, and several large parcels of white table salt.

Another large package that had been attached to a number of boards was found to consist of a quantity of twenty-five-pound parcels of cornmeal, together with several of flour. In addition to a box containing candles, and last, but not least, two boxes of ivory soap.

“I’m glad to see that,” remarked Andree, “that’s the kind of soap I like.”

“Yes,” replied Eric, “it leaves the skin nice and soft. Besides, if you put it in the water it floats instead of sinking and running away in a game of hide-and-seek, when,

of course, it always gets back of you, where you cannot easily reach it."

"I say, Eric," remarked Andree, "we forgot one store the other day when we were talking about buying soap."

"Where was that?" inquired his companion.

"The branch store we started when we threw these packages off the balloon."

In another one of the packages that was floated by means of the heavy boards from the bottom of the basket of the balloon was found a set of carpenter's tools, several small casks of nails of different sizes, chisels, augers, as well as several shovels, and mineral hammers, as well as other articles, possessing considerable weight, and, therefore, requiring the buoyancy of the wooden boards in order to float them.

But so far they had seen nothing of the two water barrels, with their precious contents of revolvers, arms, ammunition, and es-

pecially their chronometer, barometer, thermometer and sextant.

“We won’t give them up for several days yet,” remarked Eric. “I don’t understand their not being here, for it seems to me that they possessed the best chance of floating. Don’t you remember the care we took in sealing up the barrels, and covering the top of the one containing our instruments, with several layers of oil cloth?”

“Let’s begin now to carry these goods to the cave. There are only two of us, and it will need many trips.”

“Only two to carry?” inquired Eric. “I am afraid your arithmetic is bad. The way I count there are four to carry.”

“I don’t understand how you make it four,” remarked Andree.

“Hector and Snowflake, make four, don’t they?”

“You’re right, Eric, and I am very stupid in not thinking of that before. Of course,

the dogs can help us. We can easily tie bundles to their backs.”

“We certainly can,” replied Eric.

But even with the help of the dogs it required hard work and several trips before everything was transported from Balloon Point to the cave-house.

That night, before turning in, Eric proposed that they celebrate the safe arrival of their goods, by a special supper prepared from the many foods they had now safely stowed away in the cave.

Besides many other dainties, that supper consisted of several cups of excellent chocolate, made with condensed milk, and sweetened with white sugar. There were also toasted crackers covered with preserved cherries. Nor did they forget their dogs, for besides giving them two additional dog biscuits, they also gave them some of the sweets of which they appeared to be especially fond.

But there were still missing the two barrels containing so much of value to them. Early next morning they sought the northern coast of the island, and walked along carefully examining the beach to see if anything had been thrown up from the sea. It was not, however, until they got near the mouth of Eric River that they saw one of the long-sought-for barrels. It was floating head upwards at about fifteen feet from the shore almost directly opposite the river's mouth.

On the previous day, while unwrapping their packages, Andree noticed that Eric had selected a length of one of the strong pieces of hempen cord about thirty feet long, and, after tying a strong loop at one end, large enough to go around one of his wrists, and a running noose at the other end, had coiled the rope in a loose coil nearly two feet in diameter, which he had slung over his head and one of his shoulders.

That morning, on starting out, Eric had thrown this coil of rope over his left shoulder as before, when Andree inquired:

“What are you going to do with that, Eric?”

“I will show you the first time I use it,” he remarked.

As soon as he saw the floating barrel, Andree sat down and commenced to unlace his shoes.

“What are you going to do?” inquired Eric.

“Take off my shoes and trousers and wade in after the barrel.”

“Don’t do that. “Let me show you what I brought this coil of rope for. It is what we call in the west a lasso.”

Removing the coil of rope from his head and shoulders, he held the greater portion of the loose coil in his left hand, slipping the small coil at one end over the wrist of this hand. Then grasping the end of the loose

coil in his right hand, he began swinging the loop rapidly around his head, at the same time, keeping his eye fixed on the barrel, as it was moved up and down by the waves. Suddenly he let go the loop and the coil unwrapping from his hand, moved swiftly toward the barrel, and fell so that the loop end dropped over the barrel. Then suddenly pulling the other end, Eric tightened the noose, so that it was firmly wound around the barrel.

“What a wonderful chap you are, Eric,” his companion remarked. “Was that dumb luck, or do you think you could do it again?”

“Wait until we get the barrel on shore,” replied Eric, “and if there is time I will show you.”

By pulling the other end of the lasso they succeeded in drawing the barrel up the mouth of Eric River, and by walking along the bank of the stream succeeded in drawing it a half-mile up the stream, when,

pulling the barrel to the shore, they commenced unpacking it.

They found their rifles and revolvers, as well as a small quantity of shells necessary for loading them. Considerable water had leaked in at the top of the barrel, but fortunately, the shells having been packed in water-tight boxes, were quite dry. They also found in the barrel a magnificent pair of field glasses, arranged like opera glasses, for the simultaneous use of both eyes. But there was one thing that especially pleased them. They found in this barrel an American flag with a strong flag-staff.

“We will plant this flag on the summit of Mt. Andree,” said Eric, “the next time we go there.”

When the barrel was unpacked the boys began to take their rifles and revolvers apart and thoroughly dry and cleanse them. Some rust had collected on the guns, but since they had purposely left them slightly greasy,

the rust had not penetrated very far, so that they soon had them cleaned and in good condition.

Andree now remarked to Eric:

“Now we have time, please show me whether you can throw your lasso at me as well as you did at the barrel.”

“All right,” said Eric, laughing, “stand about twenty feet from me, and I’ll throw it over your head.

Andree went the required distance and called out to Eric in a mocking voice which betrayed little doubt of the result.

“How shall I stand? Shall I hold my arms upwards, so as to help the lasso slip over them?”

“No,” replied Eric, “on the contrary, do the best you can to keep the lasso from passing over your head. I intend to throw the loop over your head and make it pass down over your arms, so as to hold them tight against your body. So keep on the lookout,

and do the best you can to stop this. If you see the lasso coming, dodge."

"What are you giving me, Eric. Of course I can keep that thing from going over my head and shoulders. I could run out of reach before it half got by me."

Andree did not know what an expert could do with a lasso; for Eric began swinging the loop around his head, carefully watching every movement made by Andree. At last, when the latter had assumed a position that satisfied him, Eric let go the loop. The rope uncoiling, sped rapidly toward Andree, and slipping down over his head and shoulders, his arms were tightly bound to his sides by Eric drawing his end of the lasso tight.

"Splendid," exclaimed Andree. "Did you learn this on the ranch? Try it again, I am sure I can keep it from slipping over my head and arms now I understand how you did it." And again going from his com-

panion he stood still at the same distance as before.

Eric said nothing, but holding the lasso as before and swinging the free end around his head, he stood watching his friend who assumed various attitudes that he was sure would prevent the lasso from slipping over him as before, but at last he was in a position that appeared to be satisfactory. Eric again freed the end of the lasso, which sped rapidly toward Andree, and slipping over his head and arms, tightly bound them to his sides as before.

“That’s certainly great,” said Andree. “Why have you never told me about the skill you possess with the lasso?”

“In the first place,” remarked Eric, “I have never thought about it. Then, in the next place, I don’t like to brag or show off the few accomplishments I possess, and there certainly was no reason why I should tell you.

“Were there many of the cowboys on the ranch that could throw the lasso better than you?”

Eric did not answer this question, but merely said:

“I believe I was regarded as skilful with the lasso.”

He might have said there were none on the ranch who could excel him in the use of this peculiar weapon.

“Eric,” said Andree, “will you teach me how to use the lasso?”

“Certainly. Remind me to-night after supper, or sooner, if we get things packed away in the cave-house.”

CHAPTER XI

TO KRANSEN ISLAND ON A CAKE OF FLOATING ICE

AFTER they had carried all their goods to the cave-house, and safely packed the ammunition in a dry part of the cave at a distance from the fire-place, they thought it wise to take an account of stock by neatly entering in one of their note books the kind and amount of their recovered goods.

As soon as this work was completed, Eric gave Andree his first lesson in casting the lasso. Andree tried to do as he was told, but was so unsuccessful that he was much discouraged. It seemed to him that he would never acquire the art, but Eric said:

“Don’t be discouraged. Lasso throwing is difficult to acquire. You’re doing very

well for a beginner. I think you will soon be able to make a fairly good cast."

It will be remembered that among the many articles taken from the barrel they had just unpacked was a pair of powerful field glasses. As soon as the lesson in lasso casting was over, Eric began cleansing the glasses, and as soon as he had completed this work he focused them on some distant object, and said:

"Let's climb to the top of Mt. Andree, and examine with the glasses the faint streak on the northeast horizon we believe to be land."

"Good," exclaimed Andree, as he followed Eric, who had begun to climb the slopes of the mountain. "At the same time we will fly the American flag from the top of the mountain. Eric, we can't be very far from Kransen Island. Don't you think that is Kransen Island which lies to the northeast?"

"That's just what I have been thinking,"

was the reply. "If we could only be sure that it is Kransen Island, and that there is any possible way of reaching it, we ought to try to go there. Once there, we could set up the wireless apparatus and let Camp Henderson know we are safe. Indeed, even if we are not able to do this, since we know that Commander Kransen intends to establish a permanent station on that island, we would be sure of seeing our friends again by simply waiting for them."

When they reached the summit of Mt. Andree, Eric took the powerful field glasses and focused them on the faint streak seen on the northeast horizon. He could now distinctly see a line of land extending in a generally easterly and westerly direction.

"It is certainly a big piece of land," he exclaimed, handing his companion the glasses. "Moreover, it is much larger than Balloon Island. Take the glass and see if you can recognize anything you remember

seeing when we visited Kransen Island.”

As Andree looked through the glasses, he said:

“You’re right, Eric. It’s land and is much larger than Balloon Island, but whether it is Kransen Island or not, I cannot say.”

“How far off do you think it is?” inquired Eric.

“I don’t know. As a guess I would say from eighty to a hundred miles. You must remember, however, that the air is very clear, and we are at an elevation of at least fifteen hundred feet, so that it might be much farther off.”

Eric now took the glasses and looked through them for at least eight minutes, carefully studying what he saw. Then there slowly came out the different conclusions that he had reached as a result of this study.

“Its general direction is the same as that of Kransen Island. Its general outline, too,

is the same. But, of course, at this distance it is impossible to say with certainty that it is Kransen Island."

"Eric," inquired Andree, "do you happen to remember the correct latitude of Kransen Island?"

"Do I remember my own name," was the reply. "Why, of course I remember it, since it included the North Pole and extended on both sides of the North Pole, the latitude of different parts of its coast, would be something between $88^{\circ} 30'$ and $89^{\circ} 30' N.$ lat."

"If we had our sextant with us," remarked Andree, "we might readily get the exact latitude of Balloon Island, and thus be better able to judge whether that is Kransen Island or not."

"That's true," replied Eric, "so you see it is a matter of the greatest importance that we make every effort to find the missing barrel, since in it we will find not only our sci-

entific instruments, and an additional supply of ammunition and shells for our rifles and revolvers, but especially the sextant, by the use of which we could calculate our latitude. Let's give all of to-morrow and the next few days to explore thoroughly the entire coast of Balloon Island to see if in this way we can find the missing barrel."

"And if it be Kransen Island, what then?"

"Then we will take any reasonable chance of reaching the Land of the North Pole. Once there, we are reasonably sure of seeing our friends again, while if we remain here we may never see them."

They started off the next day with their dogs, rifles and revolvers, to make a thorough search of the coast, planning to walk around the entire island from the western coast, as far as Balloon Point.

Besides carrying food with them they bound a number of other necessary articles

such as the tea-pot and oil lamps, and some food products on their dogs, which instead of running away, so as to escape their burdens, appeared to be only too glad to carry anything for their masters.

The excursion around the western, northern and eastern coasts of the island was very pleasant, and during it they saw many things that interested them.

On reaching Balloon Point they saw nothing of the missing barrel. After again examining the southern coast of the island as well as they could, even extending this search to some of the narrow strips of land at the bottom of the precipice, they still failed to find any traces of the missing barrel, and therefore returned no little discouraged to the cave-house.

Since it appeared that there were no chances of finding the missing barrel, they began to make their headquarters as comfortable as possible. As they now had a

fairly considerable number of boards that had been brought with them from the floating packages, they built two rude benches for the inside of the cave, and two others, one of which they placed almost immediately outside the cave, and the other near the top of Mt. Andree. On one or the other of the last two benches they spent some of their spare hours, after their hard work, looking with their glasses toward the southwest, from which direction they hoped sometime to see a balloon coming to rescue them, and at the same time, carefully observing the movements of the ocean currents, as far as they could by the direction of the floating cakes of ice as they were driven past the island by the wind.

In this way many weeks passed with, however, nothing of special note occurring.

They had now been on the island for nearly one month. Toward the close of one day as they were sitting watching the cakes

of ice float past them from the bench near the top of Mt. Andree, Eric exclaimed:

“Andree, I have made an important discovery.”

“Let’s have it, Eric,” was the reply. “I have great confidence in anything you are willing to call important.”

“Nearly all the cakes of ice that float past here when the wind is blowing from the south, are carried almost directly toward the island we think is Kransen Island.”

“And then,” said Andree, seeing that there was something else on Eric’s mind, that he appeared to hesitate to talk about. “What else, Eric?”

“Why,” said Eric, slowly, as if still thinking, “if we are fortunate enough to obtain our sextant, and know from our latitude that the distant land is really Kransen Island, I believe it would be wise to attempt to reach that island. You see,” he added, “some of the largest cakes of ice frequently

come to rest for a short time at this point of the island. We might, therefore, by hard work, place most, if not all, our goods on such a cake, which I believe would safely carry us to the island on our north-east."

"If you think it wise to take such a step," remarked Andree, "I am ready to go with you."

"Thank you, Andree," remarked Eric. "You may be sure, I will never make the attempt unless the chances appear to be much more in our favor than they are against us."

Again Eric fell into a train of thought, and remained silent for nearly half an hour. Knowing the peculiarity of his friend, Andree refrained from interrupting his thoughts, and, therefore, remained silent also.

At last Eric broke the silence, saying:

"Andree, we have been making a great mistake all this time. There is something

that we have not done which if we do, I think will give us a reasonable chance for finding the barrel if it is on the island."

"Let's hear what that something is which we have failed to do. If it gives any promise of our finding the missing barrel, I will do all I can to aid you."

"Andree," remarked his friend, "you know our cave has been formed by the waves of the ocean dissolving a part of the limestone cliff when it was at the level of the ocean long ago. I have noticed that several portions of the cliff to the east of us that are still reached by the waves, are limestone. It is probable, therefore, that some of these have been hollowed out into caves by the action of the waves. Now if such a large cave exists, it is possible that the missing barrel may have floated into it. Let's build a raft and make an examination of these parts of the coast."

"That's great, Eric. I think it very

likely we shall find a cave of this sort on some portions of the cliff."

The boys were so excited at the idea that they at once set to work and succeeded in building a fairly large raft by nailing together the boards that they had obtained from the basket of the balloon. This raft was finally launched in front of the cave-house, and, after an examination of several hours, on a part of the precipice, which could not be seen from the plateau road, owing to the overhanging of the walls, they found a cavern of considerable size, the roof of which was at least a hundred feet in height. After some trouble they entered the cavern with their raft, but did not see anything in it. When, however, they lighted two candles they had brought with them, Eric suddenly shouted:

"Look in the corner, Andree. There's our missing barrel."

"That's our barrel all right," was the re-

ply. "Can you throw your lasso over it?" he inquired.

"That's easy," was the remark. And in a few moments the top of the barrel was securely held by the lasso."

It required fully two hours to transport the barrel to the beach in front of their house-cave. At last, however, this was accomplished, when they eagerly began to unpack it.

They were greatly pleased to find the barrel completely water-tight. Owing to the nature of its contents, they had been especially careful in replacing the head and had also tightly tacked around it several layers of oil cloth, so that on opening the barrel they found that everything it contained was in excellent condition.

Of course, their chronometers had run down, but setting them as near as they could to twelve o'clock by the sun, they climbed Mt. Andree and obtained an observation of

the sun from which they calculated that the latitude of their island was not far from $88^{\circ} 30' \text{ N.}$

“Andree,” said Eric, as soon as the calculations had been made, “there is no doubt that the distant land is Kransen Island. If, therefore, you will go with me we will try to reach it on a floating cake of ice.”

“I’ll go with you, Eric.”

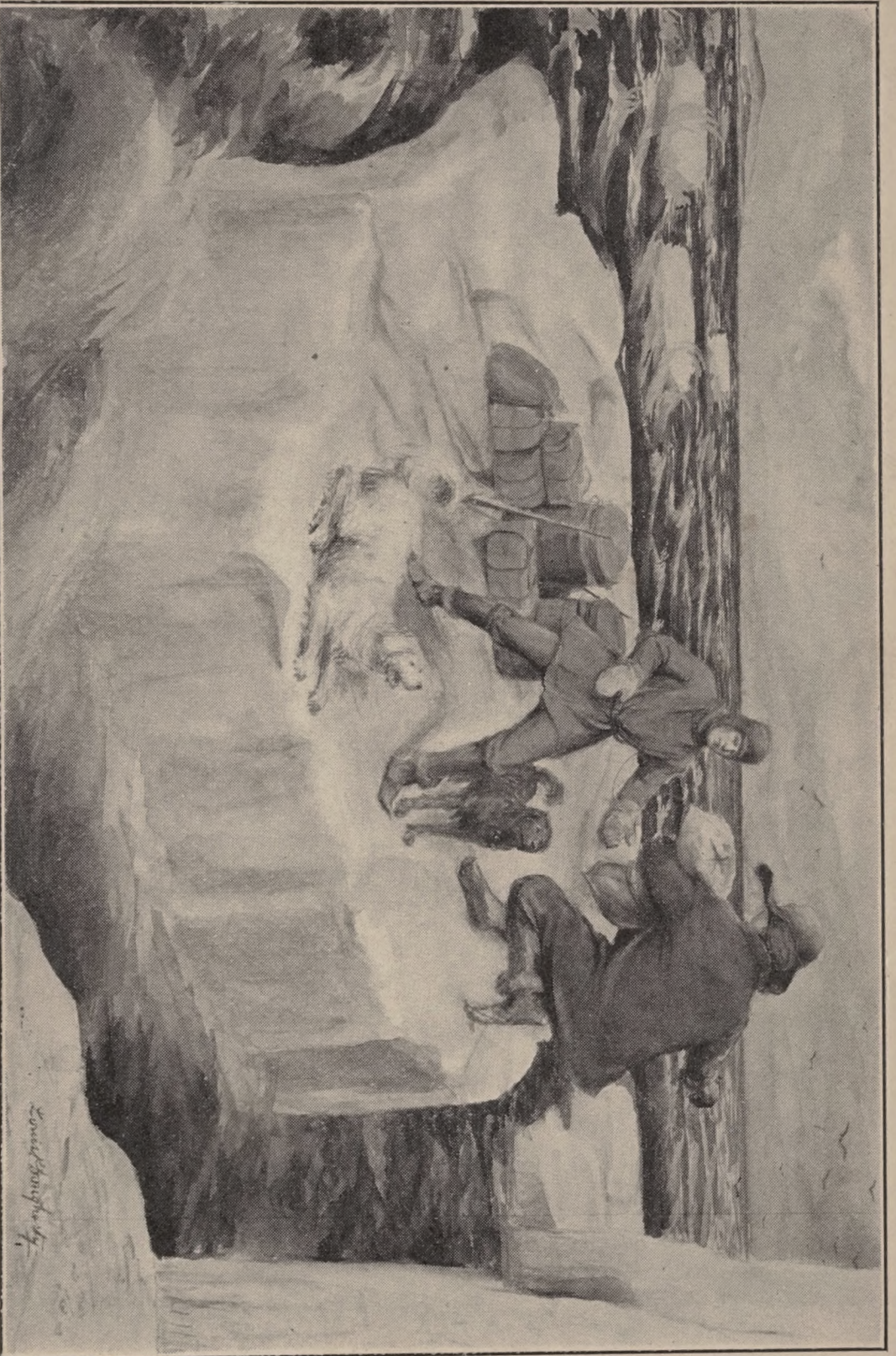
“Then we will leave Balloon Island on the first large cake of ice that stops for awhile against the southwestern coast. Let us collect all our goods on the beach near this place, so as to be ready to carry them to the ice cake we select for this purpose; for, of course, we will take all our supplies with us. They are extremely valuable, and we will need them on Kransen Island, if we are fortunate enough to reach that place.”

Collecting their goods on the beach, they were favored by an unusually large cake

of ice soon becoming firmly wedged against the southwestern shore. They worked rapidly but before they had succeeded in loading all of their goods upon this cake, it gave a lurch and was free in deep water. Eric was on shore picking up the last package, when a despairing cry from Andree reached his ears. He glanced up quickly and was horrified to see several feet of black water separating him from his friend, and the sides of the ice cake too steep to be climbed. Eric realized instantly that he must perish if left alone, but the moment of indecision was precious. Gathering himself for the effort of his life, he sprang for the moving ice cake. For a breathless second it seemed that he must fall short. He reached the edge, however, but would have fallen backward had not Andree grasped his outstretched arm and pulled him to a place of safety.

As the ice cake slowly left the island, they

He sprang for the moving ice cake



could see floating from the flagstaff from the top of Mt. Andree, the United States flag that indicated that the island had been taken possession of in the name of the United States of America.

It is not our intention to relate the many exciting experiences they had during this venturesome voyage. It required at least three days before they reached the coast of Kransen Island. At one time it seemed as if the cake of ice was moving in the wrong direction, but fortunately the freshening of the wind, together possibly with the action of ocean currents, they were carried toward the northeast and at last they reached what both recognized as Kransen Island, or the Land of the North Pole.

CHAPTER XII

ARRIVAL AT KRANSEN ISLAND, OR THE ISLAND OF THE NORTH POLE

THE floating cake of ice carried the boys and their dogs to a point on the southwestern coast of Kransen Island not far from the lava caves. It seemed that but few of the cakes of ice they had seen while on Balloon Island floating toward the northeast had reached Kransen Island. A greater part of them had probably passed the western coast of the island.

“Andree,” said Eric, as soon as the cake had touched the shore, “let’s give thanks to God for safely bringing us here.”

The boys knelt on the shore, returning thanks to God for their having again escaped the perils of the deep.

Fearing their floating ice raft might be carried away from the island, and swept up its western coast, they worked hard in order to carry all their goods to the shore, where they placed them above the reach of the waves.

Not a single article had been lost of all they had placed on the ice cake at Balloon Island.

As soon as all of their goods had been transferred from the ice cake to the shore, they hauled the raft up the beach so that it could not be carried away by the waves and then began carrying their goods to the cave.

When they reached the lava caves they found everything as they had left it, thus showing that the place had not been visited during their absence. Of course, it was hardly to be expected that any people would have reached Kransen Island, but they knew that there was a danger that wandering bears, attracted by the scent of some of their

food products, might have entered the place and destroyed their goods.

“As, of course, we will sleep here,” said Eric, “let us throw away the old bedding and collect a lot of fresh moss and leave it out on the rocks where it will dry, so that when we turn in to-night we will have fresh bedding.”

At the same time they dragged out their sleeping-bag, and turning it inside out placed it where it would be thoroughly dried and aired.

The boys properly regarded the matches as among their most valuable possessions, so that whenever they moved from place to place they were careful to see that they were stored in as dry and as safe a place as possible. Indeed, fearing that in some unexpected way, the matches might catch fire, they adopted the precaution of selecting storage places at some little distance from each other.

“Eric,” said Andree, “it is now supper time. What do you say to preparing a special supper in honor of our safe arrival?”

“Agreed,” said Eric, “I confess I am very hungry.”

“That does not surprise me, Eric. Our last thirty-six hours on the ice raft were crowded with so many dangers and anxieties, that we were unable to prepare regular meals, and we scarcely had a bite to eat, and, as you know, since we have arrived here, we have been hard at work, carrying our goods to this place.”

“We won’t attempt now to examine the stores left in the lava cave when we were here last. To-morrow will be time enough for that. We know we have plenty of good things in what we brought from Balloon Island,” said Eric.

That supper was greatly enjoyed both by the boys and their dogs. This was not only by reason of the substantial food and dain-

ties that were served; not only because the boys were very hungry, nor was it only because the cave appeared so cozy and comfortable, on account of the bright glow of the fire and the uniform warm temperature resulting from the hot springs, but it was because they were sensible of the great dangers through which they had safely passed.

They sat for several hours after supper, talking about the many interesting things that had happened since their hurried departure from Balloon Station No. 2, and especially about their plans for living on the island.

Finally, Andree said to Eric:

“What do you say about turning in now for the night?”

“I have a better proposition than that,” was the reply.

“Let’s hear it,” said Andree.

“That we go to our supplies and get each of us a cake of the ivory soap we were

so rejoiced to find, and then see what a judicious combination of ivory soap, warm water, and arm work will do towards washing us. I never remember being as dirty as I am now. I have thought many times since we discovered the ivory soap of the splendid time we could have in the hot spring taking a square wash."

"That's a good amendment," said Andree. "I accept it with pleasure, providing you permit me to add something to it."

"Let's hear it."

"That we also thoroughly wash our underclothes, and hang them up to dry. Since our sleeping-bag is dried and aired by this time, we can turn in as we come from the bath. We will not miss our clothes and will find them thoroughly dried by the time to put them on in the morning."

The boys were soon undressed and thoroughly enjoyed the luxury of a warm bath with plenty of good soap.

After washing themselves, and taking a plunge in the pool, they set to work at washing their underclothes and such of their outer garments as could be safely subjected to the process.

Then, after a ten minutes' swim in the pool, they dried themselves off, and creeping into their sleeping-bag, they were soon in a dreamless sleep.

Getting up the next morning, they found that the weather had changed. A drizzling rain was falling, and a dense fog had settled down on everything. There was plenty to do, however, so that after breakfast they set to work breaking up the raft and employing the lumber for the construction of benches at different parts of the cave as well as making a dining and working table.

In the afternoon they began taking an account of the goods left in the cave by Kransen and his party, both from the balloon in which the boys had reached the

island, as well as the supply of goods of the dirigible balloon.

They were pleased to find that these comprised a far greater abundance and variety of food products, as well as other important articles than those they had brought with them from Balloon Island. If, however, they were to spend the entire winter on the island it would be necessary to lay up a still greater supply. A plentiful food supply could be obtained on the island provided it was collected before the animals left on the approach of winter.

They were especially pleased to find a good supply of loaded shells of the sizes intended for their rifles and revolvers, together with a large quantity of powder and of percussion caps suitable for reloading empty shells. They would, therefore, not be obliged to limit themselves in shooting.

Another carpenter's tool box, containing a great variety of hardware, saws, ham-

mers, shovels, pickaxes, mining hammers, was found together with different kinds of paints, oils and varnishes, and, last, but by no means least, several gross of boxes of matches.

After a careful inventory had been made of all their goods, Eric said:

“And now, Andree, the most important thing to do is to overhaul the stationary balloon left here, so that we can get ready to inflate it, and get its wireless apparatus in position.”

The balloon was unpacked and found, after a careful examination, to be in an apparently good condition.

“If there are any leaks in it,” said Eric, “we have plenty of rubber varnish in the supplies left in the lava cave, and can therefore stop them. And now,” he continued, “let us go carefully over the wireless apparatus, and as soon as we are satisfied that it is in good condition we will inflate

the balloon and put the wireless apparatus in place."

The wireless apparatus was unpacked and found to be in excellent condition, but it was evident from Eric's manner that something or other was wrong, since he repeatedly looked over the different parts again and again, as though he had missed something important.

"What are you looking for?" inquired Andree.

"I cannot find the Ruhmkorff coil or the voltaic battery."

"How is that? Don't you remember putting them away with the other apparatus?"

"I didn't put them away," said Eric. "They were put away by Mr. Jannsen, the chief mechanic, who had charge of the dirigible balloon. He must have placed this apparatus among the other things, since he knew that without them the wireless apparatus would be useless; for they are nec-

essary to produce the electro-magnetic waves sent as impulses through space."

"Let us look carefully over all our goods. If they were left in the cave, we must, of course, find them in some place or other."

But a very thorough examination failed to disclose the apparatus for which they were looking.

"Unless we can find these things," said Eric, "we must give up all thoughts of communication with Camp Henderson. Suppose we go again over everything. If we fail to find them this time, we must conclude they were not left in the cave. They could not have been taken out afterward."

Another examination failed to disclose either the voltaic cells or the Ruhmkorff coil.

"Well," remarked Eric, "we must give up all idea of sending wireless messages. The next best thing to do is to make up our minds to settle down on Kransen Island for the long winter night. As it is now the mid-

dle of August, we have a fairly long time to work in the sunlight."

"Of course," said Andree. "It is possible that a party may be sent here from Camp Henderson. You know it was the intention of uncle Lars to establish permanent headquarters here. Indeed, the materials for this purpose were to be sent by the ship we met in the sound during the time of our dangerous trip on the floating iceberg."

"I should certainly expect such a party," said Eric, "were it not that our sudden disappearance might keep them so long a time at Camp Henderson as to make it too late to send an expedition to Kransen Island, that could return to Camp Henderson before the setting in of the winter. It may, therefore, be next summer before such a party reaches this point."

"I'm afraid that's true," remarked Andree.

"There is much to do. In the first place

we must lay up a good supply of coal. Then we must take steps to increase our food supplies. Besides this, as we are not sure whether the temperature will remain warm in the cave during the winter, although I believe it will, we will take steps to close up a portion of the cave."

"I hardly think the winter will affect the temperature of the hot springs enough to lower seriously the temperature of the air here, do you?"

"No, I don't," was the reply. "But we cannot afford to take any risks, so let's get to work."

"Of course," said Andree, "some of this work is more important than others. For example, we can get the coal at any time, but since the animals will be leaving on the approach of cold weather, we had better first attend to the food supplies."

"Do you remember, Andree," said Eric, "that among the articles we found in the

packages that floated here from the balloon were a number of fishing lines and hooks. There are, of course, fish in the ocean, for some of the birds here live almost wholly on fish. Suppose we go to-morrow and see if we can increase our food supplies in this way?"

It was therefore agreed to go fishing early the next morning.

"Andree," said Eric, as if he had dismissed this matter from his mind, "can you sew?"

"Yes, fairly well. I won't promise the work will be fine, but if you give me a good big needle and strong thread I will answer for its holding. Do you want me to make you a shirt?"

"It's not as bad as that," replied Eric, laughing, "but I wish you to help me make some open-mouthed sacks for placing on our dogs, so they can help us carry things. If we can make strong canvas bags and attach

two of them to a strong piece of canvas with their mouths upwards, we could secure them to the backs of the dogs by buttoning the ends of the strips together. This would give us four bags, or two to each dog, and would greatly help us in carrying things from place to place."

Like all dress-making operations, there was considerable fitting, altering and trying on before the bags were found to fit the dogs. As far, however, as the dogs were concerned, instead of objecting to their new harness they appeared to regard the whole proceeding as a kind of game that their masters had gotten up for their special amusement.

When the last trying on had been declared satisfactory, the bags were permanently fixed on the backs of the dogs by fastening one end under their bellies and buttoning two ends of the supporting band together.

"There are a few hours before supper time," said Eric, "let's take a walk and see

whether the American flag we planted on the flagstaff at the North Pole is still floating. Then, on our return, we will stop at the coal mine and fill the bags on the dogs with coal. In this way we will be able to collect gradually a large quantity of this necessary material.”

They found the flagpole standing as they had left it, occupying a position corresponding exactly to the North Pole of the earth.

The flag of the United States was still proudly floating in the breeze with its red and white stripes, and its white stars on an azure field. It is true that Andree was not American born, but when he first came to New York City, his uncle had him signify his intention of becoming a citizen of the United States as soon as this could be legally done. He therefore felt that the United States was his adopted country just as it was Eric's native country.

When the boys saw the glorious stars and

stripes proudly floating on a pole planted in this hitherto inaccessible part of the earth, they felt a natural pride that the land had been taken possession of in the name of their country. It is true that the exposure to the wind and weather had bleached the colors, but they were still the crimson, the azure, and the white arranged, as the stars and stripes of a country that is able to protect its citizens in no matter what part of the world they may be. The flag was even torn in places by the violence of the wind, but it was still their country's flag. It is not at all surprising therefore when they reached the flag that they removed their caps and saluted this symbol of the United States of America.

On their return they visited the coal mine, which it will be remembered was only about half a mile from the cave. As they had brought with them several pickaxes and shovels, they soon were able to fill the four

canvas bags on the backs of the dogs with good lignite coal. On their return to the cave, the bags were unloaded and the coal placed on the floor of one of the smaller caves nearest to the fire place.

Their hands and faces were covered with coal dust, for one cannot mine coal, especially in the primitive manner in which they were obliged to do it, and remain clean, but as Eric remarked:

“A judicious application of ivory soap with the hot water of the spring will soon remove this little difficulty,” which was promptly done.

After supper they turned in, and were soon in a deep sleep.

CHAPTER XIII

PREPARATIONS FOR WINTERING ON KRANSEN ISLAND

NEXT day they started across the island for the eastern coast, first placing the empty canvas bags on the backs of the dogs. Eric also brought his lasso, and, of course, both boys had their rifles and revolvers. They found almost countless numbers of birds and birds' eggs. They thought it best, however, not to attempt to lay in any supply of birds or eggs, until after fishing. So baiting the hooks on the dipsey-lines, they threw them out into the ocean and were soon pulling in several large fish, which they recognized as a specie of flat fish or flounder. When they had taken some ten of these they changed their fishing place and going to a

rocky point on the shore, where there was deep water, immediately off the rocks, they baited their hooks with pieces of the flounders, and throwing their lines into some fifteen fathoms of water, they were both successful in pulling in a large codfish. They continued fishing until some six or eight large sized cod were taken.

“That will do for to-day,” replied Eric. “We wanted to find what chances we have for fish food during the winter. I think that question has been answered all right. Of course, it is improbable that all these fish remain in the waters during the winter. As soon, therefore, as we form some plan for keeping the fish we will go regularly to work as fishermen until we have caught a supply large enough to last through the coming winter.”

“Eric,” replied Andree, “you know Norway is a great fishing place. When I lived in Sweden, I used to spend a part of my

summer vacation on the coast of Norway near the fishing grounds. Here I had an opportunity of seeing the different ways they cured the fish for keeping during the winter."

"I'm glad to hear that," said Eric. "Tell me some of these methods."

"The fish are opened and cleansed as soon as caught," said Andree. "They are then rubbed with salt, when they are treated in three different ways according to the manner in which it is intended to preserve them. They are either packed in casks or barrels in a strong solution of brine or salt; are again rubbed with salt and hung up in the air to dry; or, after being rubbed with salt, they are hung in a place where they are exposed to the smoke of a wood fire."

"Yes," said Eric, "I remember that the last is employed for preparing cured or dried beef or smoked hams. During the burning of the wood a chemical substance is

produced that acts as a preservative for the meat. After they have been subjected to this smoking process they will keep in the air for a long time."

"The substance you refer to is creosote," remarked Andree. "It is produced during the burning of the wood by what is known as destructive distillation. It is easy to produce creosote, provided the wood is permitted to smoulder and not to burn freely, so that smoke houses are necessary."

"Then," replied his companion, "there should be no difficulty in preserving both fish and meat by starting a smoke-house in one of the small caves. The wood from the dwarf willows or cedars that grow plentifully on the island will answer for this purpose. But," continued Eric, "there is a difficulty in employing any of these processes. They all require considerable salt, and we have only a small quantity of this substance with us. Too small, indeed, to permit us to

use it in the large quantities that are necessary."

"Then," replied his companion, "we will become manufacturers of salt."

"What do you mean?" inquired Eric, laughing. "Try to boil it down from ocean water? I am afraid that will be a very slow process."

"That's true," said Andree, "but I think there will be no difficulty in arranging matters so that the process can take care of itself."

"How is that?"

"Suppose we took one of the largest of our vessels, filled it with ocean water, and immersed it in the boiling spring in the cave, so that the water would touch only the outside of the vessel. The water, of course, would all boil off, leaving the salt in the vessel. If, therefore, from time to time we placed fresh ocean water in the vessel, we could in this way obtain a certain quantity

of salt. Of course, the amount would be small, but as I said before, it would require no watching and only replenishing with sea water from time to time."

"Andree," said Eric, "that's a splendid idea. We'll try it. But there's another difficulty, however, that I fear will be harder to solve."

"What is that?"

"To get the vessels for holding the ocean water."

"Yes, that is a difficulty, and one too that I don't see just now how to solve. However, let us think carefully over it, and, perhaps, we may see our way of getting around it, though at present I must say that it looks as though we were stumped."

"Provided we can get enough salt, there should be no difficulty about drying the fish either in the air or in the smoke of the smoke-house."

"Well," replied Andree, "we have the

fish, and we had better open and clean them.”

As soon as this was done they washed the fish in the water, so as to remove all blood, and then divided them between the two bags that had been placed on Hector.

Snowflake appeared to be jealous that Hector should have had the honor of carrying the load of fish, especially, perhaps, because the load contained something of which the dogs were fond, and of which they confidently expected a small quantity would be given them when they reached the cave and the boys had taken their load from them.

They now proceeded to the southeastern coast of the island. As they were walking along, Eric began laughing, and said to his companion:

“Look at that, Andree,” pointing to something lying on the coast so that the waves would occasionally dash over it. “Have you ever seen it before?”

“Certainly,” remarked Andree, “it’s the basket of our balloon.”

“I wonder how it got here,” said Eric. “I guess it has gone past the southeast corner of Balloon Island and was carried here by the ocean currents.”

“Yes, I remember,” said Andree, “that is the direction all the floating cakes of ice took, and especially the cake of ice that brought us here, only our cake reached the southern coast of the island on the west, while this has landed near the eastern coast.”

“Of course,” replied Eric, “but, then, these currents change with the wind. Besides, the basket, on account of its light material, must have floated with a fairly considerable portion out of the water. The wind might, therefore, have more readily changed its direction.”

The boys drew the basket out of the water high up on the beach, where the waves could

not reach it. An examination showed that the strips of willow, of which it largely consisted, were in a pliant condition, owing to long soaking in the water.

“This is very interesting,” said Andree, “but I don’t see how we can turn it to any use, unless, indeed, it may do for firewood. Or,” he said, laughing, “for toothpicks, of which I believe we brought only one with us when we reached Balloon island.”

“You’re wrong there. The willow strips will enable me to do what I have been wanting to do since yesterday.”

“What’s that?”

“To make an improvement on the dogs’ carrying-bags. I propose we try to weave them into baskets. I am afraid, however, that if you know no more about making baskets than I do, they will be very unsatisfactory, for I certainly never attempted to make such things before and haven’t the least idea how to go about it.”

“In what shape did you think of making these baskets, Eric,” asked Andree.

“Like the baskets sporting fishermen use. I mean baskets carried by straps thrown over the shoulders, and shaped to fit tightly against one side of the body. If we make two baskets for each dog to take the place of the canvas bags, and attach them to the bodies of the dogs in the same way as we attached the bags, they would be a great improvement on them. What do you think of it?” he inquired.

“It’s a good idea, and I can help you perhaps more than you think. I was taught basket making at that same seaside resort in Norway near the fishing banks. Here I became acquainted with a poor fisherman who had been so injured during a storm that he was obliged to support himself by basket-making. I used to go at times to read to him while he was at work. He taught me basket-making, and I am glad to

say that I became fairly expert at the work. I would suggest, therefore, that we carefully unwrap the strips of willow from the basket and take them with us to the cave."

"Andree," said Eric, laughing, "somehow or other, that word, cave, is not a very pleasant name for our headquarters. What do you say to giving it another name?"

"I am willing. Have you any other name to propose?"

"What do you say to Kransen House?"

"All right, from this time we will call it Kransen House?"

They were several hours in unwinding the strips of willow from the basket of the balloon. Then tying them into two bundles the boys threw them over their shoulders and returned to Kransen House.

"The willow strips are now wet and flexible," said Andree. "As they will rapidly dry, suppose we go to work at once in shaping them like baskets. I think we can spare

the rest of the day for this work, and as much of to-morrow as may be necessary.”

“Yes,” replied Eric, “and while we are working at it, we may as well fill one of our largest pots with ocean water, and place it in the boiling-springs so that the water may be boiled off.”

Taking several of their pots to the ocean and filling them with water, they returned to Kransen House, and placed the largest in the boiling spring, where it soon started to boil. They selected for this purpose a portion of the spring where, although the vessel rested on the bottom of the basin, the water reached only to about three-fourths of the top of the vessel, so that while the water in the vessel soon commenced boiling, the water of the spring was not able to enter the vessel.

During that day and the next day while they were working at the willow baskets they occasionally poured more ocean water

into the vessels as the water evaporated, so that by the next day they had a quantity of salt obtained in this way by the evaporation of ocean water.

“It’s slow work,” said Eric, “but as it doesn’t require much attention, on our part, we must be satisfied with this method of obtaining salt until we can find a better way.”

Under Andree’s instructions, and, mainly by his work, four baskets were completed for the dogs by the end of the next day. They were, indeed, very satisfactory, for Andree had mastered the art of basket making in a very thorough manner.

When the baskets were properly attached to the bands of cloth and buttoned into position on the two dogs, so far from objecting to them they appeared to be very proud of their new gear.

Of course, the boys were careful to remove the baskets or the bags from the dogs when they were not required for use. But

whether it was because the dogs wished to aid their masters, or, as is more likely, because they associated in their minds the baskets with pleasant walking excursions whenever the boys would pick up the baskets and say:

“Come, Hector! Come, Snowflake! Come, get your baskets on,” instead of running away and so shirking their work, they ran with eager barkings, and stood patiently until the baskets were fastened on them, and then running out of the cave, stood shaking their tails as if to say:

“Come, we are ready now for a walk.”

Nor was such conduct surprising, for doubtless, many of the boys who read this book, have dogs of their own, know how excited the animals become when they say to them:

“Do you want to take a walk?”

“Andree,” said Eric one day, “although we are very comfortable in Kransen House,

yet I think it is too open. I don't like the idea of leaving our front door wide open. It may be dangerous during the long winter night to sleep in our cave with an open door."

"Do you fear that Dr. Willson and his dangerous allies, the Eskimos, may pay us a visit?" said Andree, laughing.

"No, there is very little probability of that."

"Then what other visitors do you fear?"

"Polar bears. I have no doubt that during winter this island is visited by these animals in search of food."

"I thought polar bears hibernated or went to sleep under the snow in winter," said Andree. "I certainly remember reading stories of such things in books and even seeing a picture of the same."

"I think that is principally the female bear with her cubs. However that may be, I know that many of the Arctic explorers

speak of the visits they have received during the middle of winter from wandering bears, so that these animals were certainly not hibernating.”

“Well, then,” said Andree, “we’ll make a door for Kransen House by nailing together several thicknesses of the boards we took from the balloon. We’ll then build around this door a strong stone wall by piling flat pieces of stone on top of one another. We can then turn in during the winter nights without wondering whether a bear will pay us a visit or not. It would, indeed, be very stupid to be obliged to divide the night into watches so that only one of us could sleep while the other fellow watched.”

The cave they had been occupying on Kransen Island had a wide opening, of perhaps, thirty feet in width and twenty feet in height.

As they stood looking at the opening, Eric remarked:

“In order to keep so high a wall from falling, we will have to make it thick, or with a very broad base.”

“Why not hold the stones together with mortar?” inquired Andree.

“Where will you get the mortar?”

“There’s no trouble about that. I noticed yesterday, at a point near the coal mine, that there was a splendid deposit of limestone. Now, since we have plenty of coal, it will be easy to build a kiln and, starting a strong fire, fill it with limestone. As you know the heat of the fire will drive off the carbonic acid changing the limestone into quicklime.”

“Andree,” said Eric, “there’s nothing like having a chemist along. So we will now become limeburners, as well as masons.”

First making the door and supporting it in place they built around it a strong wall made of carefully selected stones thoroughly bound together by a mortar that they made

by slacking the limestone, and mixing it with carefully dried sand.

In order to provide for the ventilation of their cave, they left several openings near the top of the wall. These, together with a number of natural openings in the roof of the lava cave, through which the steam from the hot springs escaped, answered for additional ventilation.

While engaged in other work, they kept their salt manufactory at work. It was far from satisfactory, however, and, moreover, the salt obtained in this way, as is well known, is apt to be bitter, owing to the presence of other saline substances that exist in ocean water.

One day they had been following the tracks of some reindeer, and had already succeeded in shooting two of the animals. Wishing to see the place to which the tracks led, they found that it was what is known as a "salt lick."

As is well known, animals cannot exist without salt. Consequently they will travel for great distances in order to obtain this necessary article. Following the tracks they found they led to a small cave.

“Unless I am much mistaken,” said Eric, these tracks lead to a salt ‘lick.’ ”

And sure enough on entering the cave, they found a large deposit of beautiful crystalized rock salt.

“Now,” exclaimed Eric, “we must become miners of salt rather than manufacturers of salt.”

On returning to Kransen House, after setting aside some of the reindeer meat for cooking, and saving the skins for furs and rugs in winter, they cut the meat into suitable sized pieces and rubbing it with salt, hung it up in the smoke-house, where in process of time it became thoroughly smoked and dried.

There was yet to be solved the problem of

providing vessels for holding the brine for the pickling of the fish, or the meats, or for pickling the birds' eggs, so as to keep them fairly fresh during the winter. After trying several things Andree proposed one day, when he had discovered an excellent deposit of clay on the island, that they should try their hands at the manufacture of pottery.

Andree had taken a course in a Manual Training School in Sweden. He was, therefore, a fairly good workman, and was able, by the use of the carpenter's tools, which they had, of fashioning what is called a potter's wheel. This simple but ingenious device consists of a horizontal disc of wood, so connected with a wheel, operated by a foot treadle, as to be caused to turn rapidly on a vertical axis. When tempered by thoroughly moistening clay with water, a piece placed on this disc and rapidly revolved can easily be shaped into bowls, jars, or dishes.

There were of course many failures before

fairly satisfactorily-shaped vessels were obtained. It was only after they had carefully dried these vessels, and built a rude form of kiln in which they exposed them to a high temperature, that they were able to convert some of them into moderately strong earthenware.

But even then the vessels would leak, since the earthenware was porous. Andree, however, who was well up on the chemistry of pottery, knew that if they threw a small quantity of common salt on the ware while in the kiln, it would become covered with a coating of glaze that would render it not only impervious to water, but would also greatly strengthen it. They, therefore, did this, and, after several trials, were able to obtain water-tight vessels.

In this way they were able to put up for winter use large quantities of pickled fish, and pickled meats, as well as many hundreds of dozens of eggs.

They even prepared from the roe of some of the larger fishes a material called caviar, that is highly esteemed by those who like it.

Of course, all these preparations had taken time, so that, when they were completed, the long winter night had set in. The birds and most of the other animals had left Kransen Island for the warmer regions of the south, but not, however, before they had hanging from the roof of one of the cooler of the communicating caves they used for their storehouse, a good supply of smoked fish, smoked reindeer meat, smoked birds, and other similar food products.

Before the beginning of the long winter night, one day while the boys were hunting reindeer, they succeeded in shooting a buck and a doe. They had not noticed that the doe was accompanied by a young fawn, for under these circumstances they never would have killed its mother. The poor little animal, that appeared to have difficulty

in understanding why its dead mother lay on the ground and paid no attention to its caresses, was trying ineffectually to attract her attention.

“Let’s make a pet of the poor little thing,” said Eric. “There will be room in one of the caves, and we can try to get some of the kind of food on which it lives.” So approaching the animal Eric threw the noose of his lasso around its neck and led it to Kransen House.

It was not long before the animal lost all fear of the boys and apparently became much attached to them. Hector and Snowflake at first were unable to understand the use of a deer for any other purpose than meat, but a few judicious lessons taught them. At last they all became a fairly happy family. The boys gave the fawn the name of Lightfoot, on account of its speed.

CHAPTER XIV

WINTER AT KRANSEN ISLAND

THE length of the daylight was now rapidly becoming shorter and shorter, the sun remaining above the horizon for only a few hours when the night set in. Long before this the birds began to show signs of uneasiness.

“What is the matter with them, Eric?” inquired Andree.

“They are getting ready to return to the south. I suppose, the greatest anxiety is the fear their offspring will be unable to accompany them when they leave the island.”

By this time the boys had secured large supplies of dried and smoked birds, as well as pickled eggs. They made it a rule not

to kill animals for the mere sake of killing, but only when required for food. They were not watching the birds therefore, for the purpose of slaughter. Though cast away on an island so far from their friends, they did not fail to continue studying the habits of all kinds of animals, since in this way they could aid in commercially developing the North Polar Region according to the wishes of Mr. Henderson.

One day, when the uneasiness among the birds had been especially noticeable, one of the birds, evidently a leader of the flock, after a great cackling rose quickly in the air, and was followed almost immediately by such quantities of birds that the light of the sun was partially obscured. The flock, headed by leaders, flew rapidly toward the south, and soon disappeared below the horizon.

“It will not be until next summer,” said Andree, “that we’ll see them again.”

“Yes,” replied Eric, “and soon the rest of the birds will disappear in the same way. Think of the position we would be in then if, instead of laying up an abundance of food supplies, we had procured day by day only what was needed for our immediate use.”

“Yes,” replied Andree, “there is nothing like making hay while the sun shines.”

“Or, perhaps, more correctly,” said his companion, laughing, “preparing dried and smoked birds while the birds are with us.”

The disappearance of the birds continued at different periods until practically all had left them. They noticed it was the birds that first arrived were the first to leave. The movements toward the south being commenced apparently as soon as the young birds' wings were sufficiently developed and fledged for the long journey. For example, the first to come and the first to go, were the little snow buntings. Then the

snow geese, then the eider-ducks, the brent geese, and the various kinds of ducks, and finally the long-tailed and pin-tailed ducks.

When almost all their feathered friends had left, the boys were able more thoroughly to appreciate how greatly their presence had given an air of cheerfulness to the place, their pleasant chirpings, together with their activity, completely driving away the sense of loneliness.

The time during which the sun continued above the horizon during each rotation of the earth was now limited to a few minutes. Finally it disappeared below not to be seen again for very nearly six months.

Knowing the great importance of continuing their physical exercise during the long winter night, and remembering the care Prof. Kransen had taken in providing an athletic track near their headquarters, at Camp Henderson, the boys kept the snow partially off a level tract near Kransen

House, on which they took daily exercise in running, jumping, and wrestling. They made it a rule to spend several hours every day in the open air, except, of course, when cold winds were blowing from the north. Being careful of their diet, and of the good condition of their food, they were able to pass the winter without any attack of the scurvy, nor did they suffer much from frost-bites. They missed the outside illumination that had been provided at Camp Henderson by arc and incandescent lamps. However, during bright moonlight nights, they were able to make excursions within two or three hours' distance from Kransen House.

One moonlight night, while at a distance of two hours from Kransen House, when they had stopped a moment to observe some peculiarity in the covering of snow that had fallen a few days before, Eric noticed that Hector and Snowflake were commencing to

bury themselves in the snow by digging a hole, and, at the same time, stopping occasionally and looking at their masters and uttering a low whining.

“What’s the matter with the dogs, Eric?” inquired Andree.

“They feel a heavy snow storm coming. I remember one day while at Camp Henderson, Joe told me that when a dog begins to dig a hole in the snow with his paws and to show signs of anxiety, it is an almost sure sign of a heavy snow storm approaching. Since we have no reason for remaining out any longer, let’s hurry back to Kransen House. Had we better go home, doggies?” he asked, turning to the dogs.

It was evident from the manner of the dogs that they were decidedly of that opinion, for they ran ahead of their masters to Kransen House, shaking their tails as if they thought the decision extremely wise.

It proved that the dogs were excellent

weather prophets; for, while they were still half a mile from Kransen House, the worst storm of the winter burst furiously upon them. The snow was so heavy that it was impossible to see the direction in which they were going. They could scarcely see two feet before them and were indeed in great danger of becoming lost. But they guarded their faces from the stinging blast as best they could and blindly followed the dogs, who seemed to feel the way instinctively. At last they all reached Kransen House thoroughly worn out from their hard fight with the elements. For three days they were obliged to remain indoors. One day, while they were taking Lightfoot a walk for exercise, she suddenly stopped and began smelling at a pile of snow. Shortly afterwards she thrust her muzzle below the surface of the snow, where she apparently detected the particular lichen or moss on which she fed; for, she began digging

a hole in the snow with her forefeet until she had made an opening which uncovered the food for which she was seeking, and which she ate with an apparent relish.

“See, Andree,” said Eric, “that’s the kind of food Lightfoot needs, and since she can obtain it during the winter, we will let her wander around Kransen House to search for food and to return when she wishes.”

It may be added that from that time Lightfoot was free to leave or return to Kransen House whenever she wished to do so. She always came back when she had obtained her food, although at times she would be away for the greater part of the day. She soon learned how to ask to have the door opened, for she would gently strike the door with one of her front paws, calling the attention of the boys by a gentle cry.

Having found among the stores left at the cave a number of paper pads and note books,

they spent many of their spare hours in preparing reports about the habits of the different animals, as regards their breeding, food, as well as their enemies, and other dangers to which they were exposed. They felt confident that during the coming summer Commander Kransen would either head or send a relief party to the island. Indeed, even if it was believed at Camp Henderson that the boys were dead, they felt sure that the chances were that they would remain in the northern regions in order to carry out the desires of Mr. Henderson as fully expressed in Sealed Letter No. 2.

As the winter went on and the days became colder, the boys began to crave fatty food. This surprised them, since, while living in New York City, both Eric and Andree had a great dislike for fat, being in this respect not unlike the celebrated Jack Spratt of the old Mother Goose memory. They would, perhaps, have noticed their

longing for fatty foods during their winter at Camp Henderson had not Prof. Kransen so intelligently arranged the diet that the amount of such foods prepared for them had been almost insensibly increased, so they had failed to notice the change in their diet. Here, however, where they prepared their own food, and had therefore carefully refrained from the free use of fat or oils, they soon began to observe their craving for fat, and at last came to the conclusion that it was necessary to increase the amount of foods of this character.

“I suppose,” said Eric, “this is the reason the Eskimos are so fond of blubber, and also accounts for the fondness of the Russians for a tallow candle occasionally as an especial luxury.”

Knowing that careful records of the variations of temperature, barometric pressure, direction of the wind, would be of considerable value, they made regular observations

of these data three times a day, entering them in their note book; for, since, unfortunately, there were no books among their goods, they might otherwise have found the time hang heavily on their hands. They made up, however, for this want of books, by telling each other stories, as well as talking about the different books that they had read and the facts contained therein.

It may be mentioned here that they had several occasions to recognize the wisdom of having placed a door and stone wall at the entrance to Kransen House; for, they had several visits from hungry bears, that might otherwise have given them considerable trouble, had the animals not found a closed door when the boys were in deep slumber. They shot some four of these animals while endeavoring to break through the door in order to obtain food during the time when they were very hungry.

CHAPTER XV

RETURN OF SPRING AND SUMMER—FURTHER EXPLORATION OF KRANSEN ISLAND

AT last the long winter night was over. The sun again appeared above the horizon, and, as the length of daylight rapidly increased, the land began to take on the approach of spring. The snow gradually melted, and the icepack began to break up on all sides of the island, this breaking up beginning earliest on the southern coast. Indeed, they found that throughout the entire winter, portions of this coast remained unfrozen, evidently by reason of a warm ocean current that was directed against this part of the island.

With the return of the sun the birds came again from the south, and began building

their nests. Among the first to appear was the little snow bunting. This bird especially attracted the attention of the boys by reason of its ability to run rapidly over places covered with soft snow.

One day while the boys were watching some of these birds, Andree said to Eric:

“See how rapidly that bird runs over the snow. It does not sink in the soft snow as one would suppose it would.”

“I remember reading that the bird possesses a peculiar shape of claws. We need something to eat, so I will shoot the bird. We can then examine it more closely,” said Eric.

Eric shot one of the buntings, when an examination showed that it owed its ability to run rapidly over the snow to the formation of its claws. The hind toe was projected backwards for a fairly considerable distance.

Another early bird visitor was the snowy

owl. This bird has so dense a plumage that it might be able to withstand the most severe cold, although, like the other birds, it is, of course, obliged to return to the south on the approach of winter in order to obtain its food.

Shortly after the arrival of the snow buntings and the owls, immense flocks of geese arrived, and then different species of ducks and divers. In due process of time, all their bird friends were back again. At the same time, multitudes of the fishes appeared on which most of the birds depended for their food.

The boys had the opportunity, on the approach of warmer weather, of witnessing the arrival of immense schools of salmon.

One day while standing near the headwaters of a large river that emptied into the ocean near the central part of the southern coast they noticed how clear and cold were its waters, for the river evidently had its

source in the melting of several large accumulations of ice and snow in a number of mountain valleys.

“Eric,” said Andree, “of what does this stream remind you?”

“Of the stream we examined in Grant Land near Balloon Station No. 2.”

“You remember we thought such a river would be a splendid place for the breeding of salmon and similar fish. I wonder if this stream is visited by schools of salmon.”

“It’s very probable,” replied Eric. “This is about the time of year for salmon to spawn, so that if they come as far north as Kransen Island, we may find them in this river. Let us walk down the stream and see.”

After a walk down stream of ten miles, they saw such immense numbers of salmon in the river, in places where the water was shallow, that it appeared to be actually boiling or bubbling from the rapidity with

which the fish swam from place to place while depositing their eggs on a gravelly part of the bed.

“Here is another important food product for Mr. Henderson,” said Andree. “Salmon is a most delicious fish, not only when fresh, but also when properly salted and smoked.”

“Suppose we order the dogs to bring us some fish out of the river so as to examine them.”

The dogs, which had been trained to take fish from the water, needed no persuasion to do this, and soon laid a splendid specimen at the feet of their masters. Then they returned to the water and brought each an additional specimen, which they laid on the ground and began wagging their tails, as if to say:

“May we eat these?”

“Certainly, doggies,” said the boys, “you may eat them.”

The way the animals devoured the fish

showed that they thought them excellent food.

“Andree,” said Eric, “let’s return as fast as possible to Kransen House, get one of the small drag nets we found among our stores, return here, and catch a lot of fish so as to increase our food supply.”

“Do you think the fish will be here when we return?”

“Yes,” replied Eric, “the fish are swimming up stream. I think there will be great numbers of salmon in the river for several days.”

They returned with a small drag net and had no difficulty in taking, in a short time, more fish than they could possibly use. Indeed, after selecting several hundred of the best and largest, they put the others back into the river. After cleansing and washing the fish they lightly packed as many as possible in the four baskets on the dogs and then stringing together as many of the

remainder as they could carry, and covering the rest with flat stones, and returned to Kransen House.

Some idea of the number of salmon they had caught may be seen from the fact that four trips to and from Kransen House were necessary to take them all home.

It was, of course, necessary to take steps immediately for pickling and curing the fish, which they determined should be done by smoking. They, therefore, went with their dogs to the salt cave and returning with four baskets of salt, began to rub the salt thoroughly into the fish. Then, hanging them up in the cave employed as a smoke house, they started a smouldering fire with the wood of the dwarf willow and cedar they had previously selected for this purpose. Closing the cave so as to prevent the free burning of the wood, they left the curing process to take care of itself.

Knowing how toothsome baked or fried

salmon is when fresh, they had reserved several large fish for their supper and breakfast the next day. Toward the latter portion of their work of curing the fish, they placed one of the largest of the unsalted fish in a stone oven so that when their work was done the roast salmon was ready to be placed on the supper table.

The reindeer came in due process of time in numbers to the island. Lightfoot was permitted to roam over the island and at first, always returned at night, but when the large herds of reindeer visited that portion of Kransen Island, she showed great signs of uneasiness, appearing to hesitate whether to come back to her human friends, or to remain permanently with the herd of reindeer. At last, however, the animal's instinct prevailed, and taking a mate from the herd, she left them and never came back again.

During the winter Snowflake had a litter

of ten puppies. There was plenty of room and an abundance of food at Kransen House. Moreover, the Newfoundland dogs were of a fine breed, and would prove of great value as sledge dogs. The boys, therefore, let all the puppies live, and many were the romps that they had with the young animals, as well as with their parents, Hector and Snowflake.

The little puppies were splendid animals, and bore a ludicrous resemblance to their parents, save only in size. The boys gave names to them all, and while they were permitted to accompany them on short walks, yet, when more extended excursions were taken; the animals were either left with their mother, Snowflake, or, in some cases, were shut up alone with plenty of food and water, in one of the caves which had been set aside for their accommodation.

During the early summer the boys found plenty of time to make a series of extended

explorations of the island. As a result of this work they found many things, that were both interesting and valuable. We shall take time to describe a few of these.

Kransen Island, like Balloon Island, was highest in the west, the land here consisting of a moderately elevated mountain range extending along to the entire coast. The drainage of this part of the island consisted of three fairly large river systems, all of which flowed generally toward the east. Two of the largest uniting and emptying into the ocean on the south, near the middle of the island. The drainage of the eastern part of the island was by a number of smaller streams that rose in much less elevated lands extending along the eastern coast.

These elevations sloped toward the west, and discharged their waters into the principal or largest river system. Kransen Island, thus partook of the continental type

of elevations in having high borders and a low interior.

One day, after leaving an abundant supply of food and water with the puppies, they left Kransen House accompanied by both dogs for a more thorough exploration of western mountains.

It did not require a very extended examination to show that these mountains, like the one near the base of which their cave had been located, were of volcanic origin, being extinct volcanoes. This was seen by the presence of several lava streams in which they found springs of hot water, some of which were boiling.

They had brought their aneroid barometer with them, and observing that the central of the three mountains was the highest, they succeeded, after a somewhat fatiguing climb, in reaching the top. The height of the summit, as indicated by their aneroid barometer, was three thousand, four hundred and twenty feet.

It greatly surprised the boys to find comparatively little snow on the summits of the mountains, although in the valleys on the east, there were extensive collections of ice and snow in which the three rivers before referred to had their sources.

“Does it not surprise you, Eric?” inquired Andree, “that the snow line on these mountains does not extend nearer to the sea?”

“I would be surprised,” was the reply, “if they were not volcanic mountains. Otherwise, they would probably remain covered with ice and snow throughout the year, and would become a formidable source of icebergs.”

From the summit of the mountain they had an excellent view of a large part of the island, as well as of the other two mountains. They also had a good view of the three principal river systems before referred to.

“Suppose we name the rivers and mountain peaks,” suggested Eric.

“That’s a good idea,” replied Andree. “We will begin with the mountains near the southwestern coast. Since Kransen House is located on the side of the mountain we will call it Mt. Kransen. Now name the highest peak,” he continued.

“We will call it Mt. Henderson,” said Eric. “And now what shall be the name of the third mountain peak?”

“Let’s call it Mt. Brown, after the name of our reporter.”

“As for the rivers,” said Eric. “I think we might call them after the names of the mountains in which they rise.”

This was agreed to, so that the rivers were named, the Kransen, the Henderson, and the Brown Rivers.

Since the Henderson was the largest river they determined, after making a careful examination of the crater, and a lava stream,

that had descended its eastern slope, to examine one of the banks of the river toward its mouth. The crater of Mt. Henderson was carefully examined. Its rim had been broken on the eastern side, through which a great lava stream had flowed. This lava stream was much larger than the one they had examined on Hanscombe Island. They found on it a number of caves of the same character as those in the lava streams on Mt. Kransen, the caves, however, being much larger.

They now began the exploration of the southern bank of Henderson River. This river flowed generally toward the east through a valley that had well marked northern and southern slopes. In many places, however, the river flowed between the precipitous walls, it had cut in its bed, so that in many places water ran several hundred feet below the general level of the country.

“Let’s go along the bed of the stream and examine these cuttings,” said Andree. “They will give us a splendid chance to see the mineral deposits that the island possesses.”

“Andree,” said Eric, “while on the top of Mt. Henderson I noted that the Henderson River bends toward the south, so that in a part of its course it comes near the Kransen River. Now, as you know, the deposit of lignite is near the Kransen River. Coal occurs in more or less flat or horizontal beds. It is possible our coal bed extends north to this part of the island. If so, we may reach a point where a cutting of the Henderson River channel will uncover a part of the coal bed.”

“That’s capital,” said Andree, in an admiring tone. “I think then the chances are good for such a discovery.”

A search through the cut at last discovered a large body of lignite. As far as

they could judge, it was of the same variety as that found on Kransen River, and was, therefore, probably an extension of that bed.

“Let us now see how far the coal bed extends toward the east,” said Eric.

They were agreeably surprised to find it cropping out at various places for three miles along the stream.

“The coal deposit is very large. Eric, this is a great discovery,” said Andree.

About half a mile farther down the stream they found a splendid deposit of iron ore, consisting of angular fragments resembling those of the famous deposits in the Lake Superior regions.

“Do you know the name of this ore, Andree?” asked Eric.

“Yes, it is an oxide of iron known as hematite. If it does not contain much sulphur or phosphorus, it will prove an excellent ore for the production of cast iron or steel.

I noticed several deposits of limestone in the immediate neighborhood of the coal and iron, so that we have close together all the minerals necessary for the production of cast iron or steel."

"Yes, I know," said Eric. "In order to obtain metallic iron from iron ore, a furnace, called a blast furnace, is filled with alternate layers of coal, iron ore and limestone. In this way a high temperature is obtained. The fire is never permitted to go out while the furnace is in blast, but is often kept burning for several years. Will lignite make good iron, Andree," inquired Eric?"

"Perhaps not the best, but with care, very good iron can be produced."

A further exploration of Henderson River resulted in the discovery several miles nearer its mouth of a wonderful deposit of fossil trees.

"What are trees doing in this part of the

world where no trees can grow?" exclaimed Eric.

"The trees grew here, perhaps, several hundreds of thousands of years ago, when the climate was much warmer than now. These trees, as you see, are fossil trees. I remember reading in a book at Camp Henderson, that, at about latitude 70° N. in Greenland, a large forest of fossil trees has been found on the side of a mountain now surrounded by glaciers. A similar forest has been found on the island of Spitzbergen at about lat. 79° N. I can see no reason why even at this still higher northern latitude, in Kransen Island, a higher temperature should not have once existed."

"That's true," said Eric, "for the vast deposits of lignite coal we have just seen probably required a still higher temperature for the growth of the vegetation from which the coal was derived."

The boys examined with great interest the

fossil trees, which they could readily recognize as various kinds of firs, oaks, elms, magnolias, and laurels. Some of these trees they knew are now found growing in climates corresponding only to the warmer portions of France. Not only were the trunks of these trees preserved, but even their leaves, bark, seed-cones, etc.

“Can any explanation be given of higher temperatures in these parts of the world in the geological past?” inquired Eric.

“Yes,” replied Andree, “various explanations have been suggested. As you know, parts of the earth’s surface are undergoing constant but gradual changes of level. In some places the land is gradually sinking until it is finally covered by the ocean; while in other places, portions of the ocean’s bed are being slowly raised high in the air.”

“Now it has been suggested that should certain changes of level be produced in parts of the North Atlantic and the North Pa-

cific Oceans, that the Arctic regions of North America would have a much higher temperature than at present. For example, if parts of the bed of the North Atlantic west of France and Spain, should be raised above the level of the ocean, the Gulf Stream, which now flows too far east of the coast of the United States to affect greatly its temperature, instead of bathing as it now does with its warm waters the western coast of France, Spain, and England, and Norway, would probably flow up the eastern coast of North America, and along the western coast of Greenland, thus bathing the entire Arctic zone with its warm waters.

“What a splendid theory,” said Eric. “Such a thing would certainly make these parts of the world much warmer. Why, Andree,” he continued, “that part of the North Atlantic Ocean west of France and Spain, is where the fabled continent of Atlantis is said to have been situated. How

odd this is, I wonder if there is any truth in a prehistoric Atlantic.”

“It is quite possible,” remarked Andree.

“Have any other explanations been made?”

“Yes,” said Andree, “it has been pointed out that if the region now occupied by Alaska and its outlying islands, which, by the way, is a region of marked volcanic activity, should have been sunk below the level of the sea, the Japan Current, a warm current that flows northeast off the coast of Asia, and then bending to the east and the south, flows along the western coast of North America, would then proceed toward the north, bathing any land that may have existed in the Arctic Ocean with its warm waters.”

The boys made many interesting discoveries, during the subsequent exploration of other parts of Kransen Island. It would require, however, another volume to describe all these different things, and, since there

remains so much to be told about the subsequent adventures of the boys, we will make no attempt further to describe their explorations.

CHAPTER XVI

AN IMPORTANT DISCOVERY

WHILE much of the early spring and summer in the Polar regions of North America is characterized by pleasant weather, yet during these portions of the year there are very apt to occur heavy rains and dense fogs. The sky is then covered with thick clouds, and it becomes so dark that it is difficult to distinguish objects except at a distance of but a few feet.

It happened when the boys returned to Kransen House from the exploration of Henderson River, that the next few days were exceedingly unpleasant, owing to the presence of a drizzling rain accompanied by a dense fog. Since it was impossible to go comfortably any distance outside of Kran-

sen House, they remained indoors. This, however, did not prove unpleasant. They had much to do; for, they had brought with them specimens of the coal, limestone, and iron ore, as well as pieces of the wood, bark, leaves, and other parts of the trees they had discovered in the fossil forest. Lighting their lamps they made notes of these specimens, which they labeled and packed away.

When they had about completed this work Andree said:

“Eric, let’s prepare a large map of the island, marking on it the names we have given to the parts we saw from the top of Mt. Henderson. I made a sketch in my note book of these parts, and I think I saw you doing the same thing. Are there any large sheets of paper among our stores?”

“I remember seeing a bundle of large sized sheets lying in the part of the lava cave where the parts of the wireless telegraphic apparatus were stored. Come and hold the

lamp for me and I will get you a sheet of paper."

When Eric went to the place where he remembered seeing the package, he was astonished to find it missing. Turning to Andree, he said:

"What an uncanny part of the cave this is?"

"Why do you say that?"

"Because the paper has disappeared just as the voltaic battery and the Ruhmkorff coil of the wireless telegraphic apparatus disappeared."

"But possibly you only think you saw the package of paper."

"No," replied Eric, "there is not the shadow of a doubt in my mind about having seen them. They were lying in the place where the wireless apparatus had been placed."

"Look again," said Andree, "if you saw them there they must be there now."

“Unless,” said Eric, laughing, “they had been spirited away by the ghosts of some of the many Arctic explorers, who have lost their lives in the far north in their vain endeavor to reach the North Pole. Hold the lamp higher, please. It is so dark in this corner that I cannot see distinctly as you are now holding the light.

Andree held the lamp as requested when Eric suddenly exclaimed:

“Good gracious, Andree, the bottom of the cave has fallen in at this place, and here is the package of paper that I was looking for with the top of the package only a few inches below the level of the floor.”

“I wonder what caused it to fall in?” inquired Andree.

“I don’t know,” was the reply, “but I will look.”

Carefully examining the place, Eric discovered that this part of the cave was formed of a thin crust of lava that had fal-

len in from the weight of what had been placed on it.

“Eric,” suggested Andree, “this may account for the disappearance of the voltaic battery and the Ruhmkorff coil, which you say you believe were stored in this part of the cave.”

“Splendid, Andree,” said Eric, “you’re becoming a great observer. I think your explanation is correct. Indeed, I feel almost sure that if we look carefully in this hole we shall find the missing articles. Hold the light over the hole, please.”

As soon as this was done, Eric examined the hole and soon called out in an excited tone:

“Look, Andree, here are the missing articles,” and sure enough at the bottom of a hole, which was about one and a half feet deep, they found the long-sought Ruhmkorff coil and voltaic batteries, that formed a part of the wireless apparatus of the bal-

loon which had been stored in the cave. Carefully removing the articles they found, so far as they could see, that they were in good condition. Since the opening of the hole was comparatively small, they were puzzled to understand how the package could have got into the hole. It also surprised them that the presence of the hole had not been detected on the several occasions when they made a careful examination for these essential parts of the wireless apparatus. At last, however, Eric puzzled it out. The articles had evidently slid into the hole sidewise, and had been so followed by the package of paper, possibly placed edgewise against the apparatus, that the package had fallen so as completely to span the opening, and had thus gradually sunk into the opening to only a short distance below the level of the floor of the cave.

“You see,” remarked Eric, “I did see a package of paper.”

“Let’s take the apparatus into the larger room and examine it,” said Andree. “If the parts are in good condition, before long we will be able to let our friends at Camp Henderson know where we are.”

Everything being found right they determined to take immediate steps to inflate the balloon and place the wireless apparatus on it. This, however, proved to be a long, tedious task, for they found that the rubber varnish on its surface had become cracked in places, so that there were several places where the hydrogen gas could escape.

They thoroughly repaired these places by sewing silk cloth over them, and then filling the balloon with hydrogen gas, they gave its outer surface a thorough coating of rubber varnish, a large quantity of which they had found among the stores left in the cave on Kransen Island.

The method employed for the rapid evolution of hydrogen gas consisted in the em-

ployment of calcium silicide, an electric furnace product possessing the valuable property of liberating large quantities of pure hydrogen gas when simply immersed in water.

The charging apparatus consisted of a simple device in which a vessel of water was so provided with a large funnel that the hydrogen gas liberated when the chemical was thrown into the water passed through the funnel and entered the balloon.

During its filling, the balloon was placed outside the cave, being firmly attached to the earth by a strong hempen cable. When the filling was completed, and the basket packed with stores and supplies as usual, the coating of rubber varnish before referred to was placed on the balloon. They determined, however, to give the balloon a second coating, early next morning, letting it dry in the meantime.

Seeing that everything was safe, and that

there was no fire in the neighborhood of the balloon, they went into the cave, and, after a swim in the pool, turned in for the night.

About midnight they were awakened by the barking of Hector and Snowflake, as well as by the animals placing their paws gently on their masters' faces. Looking up they were surprised to see a bright flame outside the cave. Running to the door and looking towards the balloon, they saw that it was in flames and about half consumed. They endeavored to extinguish the fire, but without success, so that before long the entire balloon disappeared in smoke. They succeeded, however, in saving the wireless apparatus and the stores they had placed in the basket, as well as preventing the fire from spreading to the basket itself.

"This is a great disaster," exclaimed Andree.

"Yes, almost a disaster," was the reply.

"Why not a disaster?" exclaimed An-

dree. "Will it not prevent us from communicating with Camp Henderson by wireless?"

"Not necessarily," was the reply. If we can devise some arrangement for the support of the antennæ, or transmitting and receiving wires, we can set up the wireless apparatus on the top of Mt. Henderson. What could have started the fire, Andree?" continued Eric. "You are a chemist, can you explain it?"

"I am not certain," was the reply, "it is possibly due to the liberation of some spontaneously inflammable gas; or, it might have been a tiny electrical spark which ignited the hydrogen gas."

"Although very discouraging," said Eric, "I see no reason why we cannot get the wireless apparatus working from the top of Mt. Henderson."

"What are the most important things for this purpose?" inquired Andree.

“Something to which to attach the antennæ, and an enclosed space for the storing of the apparatus, since, of course, we cannot take the risk of having this apparatus ruined by a rain storm or a high wind.”

“As far as the masthead is concerned,” said Andree, “can we not nail together all our boards so as to form a frame work sufficiently high to support the antennæ?”

“Yes, I think that can be done,” said Eric. “If we can do nothing better for a house for the apparatus, let’s build a stone house on the top of Mt. Henderson, and place the masthead on the top of it. As this house will be fairly high, we will be obliged to strengthen its walls with mortar.”

“Then,” said Andree, “we’ll begin by burning a large quantity of limestone for the mortar. There will be no trouble about the building material. There are plenty of flat stones on the top of the mountain.”

The burning of the limestone and the transportation of the burnt lime to the top of Mt. Henderson was necessarily slow work, although it was hastened as much as possible. The erection of the telegraph house was still harder work, but at last they had the four walls completed.

The scarcity of lumber made it practically impossible for them to build a center for an arch that could be used for the wooden trestle work that was to support the antennæ. At last, however, by building high-gabled ends to two opposite walls, and connecting these by a beam, formed by nailing the longest pieces of wood together, they obtained a support for the wooden trestle work forming the mast head.

This work proceeded slowly, owing to the difficulty in raising the stones, as well as in obtaining a temporary scaffolding. At last, however, the building was completed. All that was required to be done was to get the

apparatus in working order and restore it to the house.

“Eric,” inquired Andree, when the stone work was completed, “how long do you think it will be before we can get into communication with Camp Henderson?”

“Unless something unexpected happens, we will be ready to send our first message sometime to-morrow afternoon.”

CHAPTER XVII

CAMP HENDERSON

IT is now necessary again to take up the thread of our story at Camp Henderson. The general belief that the boys had been murdered and their bodies thrown into the deep water of the ocean near the ruins of the balloon house, created profound sorrow at Camp Henderson; for, the boys had become great favorites, not only with the officers, but also with the crew.

Although both Commander Kransen and Dr. Hanscombe recognized the probability that the boys were dead, yet neither was willing to give up the search until either the boys or their bodies had been found. They had on several occasions endeavored to find their bodies by grappling in the ocean where

it had been alleged they were thrown. Of course all such attempts were unsuccessful. It was after the last of these attempts that Dr. Hanscombe said to Prof. Kransen:

“Kransen, you may think me foolish, but our failure to find the bodies of the boys makes me all the more unwilling to acknowledge their death. I cannot feel but that Dr. Willson has made up a lie in order to prevent his Eskimo friends from laughing at him. If the boys had been actually murdered and their bodies thrown into the ocean, I do not see how we could have failed to find them or at least parts of their remains. There are no strong currents in this part of the ocean to carry their bodies away, and, so far as I know, there are no man-eating animals here large enough to make off with their bones as well as their flesh.”

“I am glad to hear you speak that way, Hanscombe,” said Kransen. “I am exactly of your way of thinking.”

“And you are without hope of finding them alive?”

“I am not,” was the reply. “Let me explain. Suppose we assume that Willson had told a lie about the matter, then we will have to account for the disappearance of the two boys, their two Newfoundland dogs and the balloon.”

“That’s logical,” said Hanscombe eagerly. “Please take up the matter and discuss it thoroughly. First, as regards the balloon.”

“Well, as regards the balloon, it either was burned as alleged, or it left Balloon Station No. 2 uninjured, with the exception of the loss of the Ruhmkorff coil and the voltaic batteries belonging to its wireless apparatus. Had the balloon been burned, it is improbable that its entire basket would have been destroyed, nor, indeed, all of the goods that I directed to be stored in it. If it had been set on fire before it was freed

from its cable, it could not possibly have remained long in the air, so that its basket, and at least a part of its stores, would float and be found somewhere on the coast."

"That's true," replied Hanscombe.

"As you know," continued Kransen, "a most careful search has been made by the use of the gasoline motor boats that we have brought here for the purpose of dragging the grappling irons, both along the coast itself, in the immediate neighborhood of Balloon Station No. 2, as well as for several miles up and down the Bay."

"Might not the anchor have carried the basket down with it, when supposing the balloon to have been burned, the basket fell to the sea?"

"I have thought of that," was the reply. "But I do not believe the anchor was heavy enough to drag the basket after it, since as you know the basket was very light. Now, as we have utterly failed to find either the

basket or any of the goods, I think it is safe to infer that the balloon was not burned."

"I see," said Hanscombe. "If it was not burned, we have thus proved that this part of the story is false, and we are, therefore, justified in believing the entire story false. There then remains to consider what has become of the boys and their dogs."

"Exactly," replied Kransen, "and I am disposed to think that this is what Joe had in his mind when he asked permission to search the surrounding country for the Newfoundland dogs."

"And also," said Hanscombe, "your reason for thoroughly searching the country for many miles around with other large parties."

"It was that," said Kransen, "besides my desire to see the people at the encampment that Ma-kip-su and Kes-su told us about, so as to recover the boys, if living, or punish their captors, if dead."

“We conclude, therefore,” said Hanscombe, “that the balloon was not burned, that the boys were not murdered, and if neither they nor their dogs left in the balloon, but were carried away by the Eskimos, we should be able to find some traces of them.”

“That’s correct,” replied Kransen. “Let us then go to Camp Henderson and wait until Joe returns. He may have some news for us.”

It was not until three weeks after he had left, that Joe returned with his party. As soon as he returned, he went with an interpreter to report to Kransen, although as the reader knows, he had not much to tell.

“Have you found any traces of the dogs, Joe?” inquired Kransen.

“Joe no find dogs,” he said by the aid of the interpreter. “Joe visit all the encampments around here, but find no boys and no dogs.”

“Are you tired looking, Joe?” said Kransen. “Do you want to give it up?”

“No,” was the earnest reply. “Joe wants to go to other encampments. One, two, many hundreds of miles from here.”

“Ask him,” said Kransen to the interpreter, “why he wants to do this. Ask him if he does not believe the dogs have been killed with the boys, as the Eskimos have said they did.”

This question evidently greatly excited Joe, for he began to talk in an eager tone and at great length. When he had finished speaking, Kransen said to the interpreter:

“What does he say? Does he appear to have any good reason for continuing his search for the dogs?”

“He says,” explained the interpreter, “that the Newfoundland dogs are very valuable animals, and would, therefore, have been highly prized by the Eskimos. He does not think they would kill them, but

would try to take them with them. He, therefore, wishes to continue the search, since he thinks that if he could find the dogs they would help us in finding the boys or their bodies.”

When the interpreter had finished speaking, Joe said something to him in Eskimo and the interpreter turning to Kransen said:

“Joe wants to know if he can ask you some questions?”

“Certainly,” said Kransen. “I will be only too glad to answer them.”

Joe wished especially to know whether the ocean had been thoroughly dragged and whether the bodies of the boys had been found. On being informed that no trace of them had been discovered, and that, moreover, neither the basket of the balloon, nor any of the articles it contained, except the Ruhmkorff coil and the voltaic batteries, had been found; he then inquired whether

this search had been thorough, wishing to know what kind of grappling irons had been used. As soon as he heard this, Joe became excited and began again talking eagerly to the interpreter.

“What is it?” inquired Kransen.

“Joe declares,” said the interpreter, “that he now feels sure the Eskimos lied. He believes the boys have escaped in the balloon and have taken their dogs with them. He says that when an Eskimo is drowned near the shore, the body is nearly always thrown ashore by the waves. He is especially pleased to learn that neither the basket of the balloon nor any of its goods have been washed ashore. He asks that he again be permitted to leave the camp and continue his search for the boys or their dogs, since, as he says, it may be that the balloon was simply cut loose from its cable and the boys after all have been carried away by the Eskimos.”

When Kransen and Hanscombe heard what conclusions Joe had reached, Kransen said:

“Joe is a bright fellow. I will send out a party with him, so that he can visit distant encampments. Ask him,” he said, turning to the interpreter, “whether he wishes this party to be large or small.”

Joe grinned as soon as the interpreter explained the question to him.

“Small,” he said, “go quicker. Eskimos not suspect. Take no white men along. Boy Kes'-su wants to go, and I will take A-wah'-tok, good man. We will go to all encampments and find out if they heard anything about dogs and boys.”

Joe was therefore sent out with the two other Eskimos.

As he was about to leave, Joe said through the interpreter to Kransen:

“Joe going on a long trip. May not come back until next spring.”

It is hardly necessary to say that a wireless despatch had been sent to Hanscombe Island explaining the disappearance of Dr. Willson and his Eskimos, the disappearance of the boys, and what was feared concerning their fate, directing them to keep close watch on the sky to see if any balloon passed them.

In a short time the following despatch was received from Dr. Stone:

“Camp Henderson. Awful news received with great sorrow. No signs of balloon seen here. Will have constant observations taken of the sky. Frequent fogs, however, might permit balloon to pass unobserved.”

Subsequent wireless despatches from Hanscombe Island informed them that the missing balloon had not been seen. That, moreover, a thorough examination was made of all parts of the coast of Hanscombe Island in order to see if any traces of the balloon, its basket or its contents could be

found, and that thus far without any result.

Of course, Kransen's efforts greatly delayed the carrying out of the work he had planned for the development of Hanscombe and Kransen Islands. He hesitated, however, spending so large a portion of the time of the expedition in these searches, and, therefore, sent Mr. Henderson a wireless despatch asking to what extent he would be willing to have the searching continued. He was pleased to receive the following characteristic despatch from Mr. Henderson:

“NEW YORK CITY.

“Your wireless despatch concerning the disappearance of boys received. Don't hesitate to spend all the time you wish in looking for the boys. They are of great value to the expedition. Time enough to see to your work when this has been satisfactorily attended to. Keep me posted by wireless as to results reached.”

The only change that Kransen made in his plans was in regard to the development

of Kransen Island. He had spent so much time in making the necessary searches for the boys that he was unable to do considerable work on either of these islands. Leaving Capt. Jones in command of Camp Henderson, he started in company with Dr. Hanscombe with several sledging parties carrying materials for the houses, together with the steam engines, boilers, electric machines, and other things necessary for both Hanscombe and Kransen Islands. He planned to leave on Hanscombe Island the material which he hoped to employ the next year on Kransen Island, if all should go well.

Hanscombe Island was reached safely. Comfortable winter headquarters were erected of the same type of buildings as those established at Camp Henderson, and the boilers, dynamos, and electric lamps installed. Large quantities of lignite were collected for use under the boilers, and a

more systematic survey of the island was carried on.

On the completion of this work they all safely returned to Camp Henderson except some of their party, whom they left on the island with Dr. Stone.

Nothing occurred of a special note at Camp Henderson during their second winter there. The long winter night at last passed. At the beginning of summer, Joe and his party had returned. They brought with them information that caused great joy throughout Camp Henderson.

Joe reported that he had made thorough search through the Eskimo encampments for hundreds of miles around them without finding traces either of the boys or of their dogs. During these travels, however, he had met several Eskimos with whom he was well acquainted, who informed him that the story told concerning the murder of the boys and the destruction of the balloon, was false.

That one of them had talked with an Eskimo belonging to Dr. Willson's party. That Dr. Willson had been treating his Eskimo friends so foolishly that many of his party had quarreled and left him. It was one of these men who had told Joe's acquaintance in detail how the boys, together with their Newfoundland dogs, had escaped in the balloon. The man appeared to take special pleasure in informing Joe's acquaintance how Eric had wounded Dr. Willson in the right wrist when he was aiming a revolver at the boys.

There was great rejoicing at Camp Henderson. The men appearing to be especially pleased, not only that the boys had escaped, but that Mr. Eric had put a rifle ball through Dr. Willson's right wrist. They appeared to agree that the only mistake he made was in not putting this ball through Dr. Willson's heart or brain, an opinion, which, taking everything into consideration,

would seem to possess no little in its favor.

Capt. Jones was especially pleased when he heard the glad news.

“What did I tell you,” he said triumphantly to Kransen. “Didn’t I back the boys to get out of such a scrape? I think it almost certain that they have reached Kransen Island, for, as you know, Mr. Eric can manage a balloon as well as our chief mechanician.

“That’s true,” said Jansen, the mechanician, who was present.

“But why did they not communicate with us by wireless?” said an officer who was present. “Supposing they had reached Kransen Island, for I understood you to tell me that complete wireless apparatus had been left with the balloon in the cave at that place.”

“I do not know why,” said Kransen. “Possibly the apparatus has been injured or some important part of it has been lost.”

“What are your plans?” inquired Dr. Hanscombe, “now that you have received this splendid news from Joe?”

“I shall prepare the largest of the dirigible balloons,” said Kransen, “and go to Kransen Island by the way of Hanscombe Island.”

“Whom will you take with you?” inquired Hanscombe.

“Certainly you for one,” was the reply. “The chief mechanic for another, and Capt. Jones for the fourth, if he thinks he can safely leave Camp Henderson and the vessel while he is gone.”

“Wall,” said Jones, “I reckon I’ll go with you. Gideon Thomas can look after Camp Henderson while I am away.”

CHAPTER XVIII

THE WIRELESS TELEGRAPHIC STATION ON KRANSEN ISLAND

RETURNING now to Kransen Island, the boys were up bright and early, working hard to complete the placing of the wireless telegraphic apparatus, and making the necessary adjustments of the sending and receiving instruments.

“Andree, I am now ready to send our first message to Camp Henderson.”

The boys were naturally greatly excited, for it had now been a long time since they had seen or heard of any of their friends. Both of them knew that in such far away districts as the Arctic regions, much might possibly happen during this time. They wondered, therefore, whether their dear un-

cles were still living, and whether everything had gone well with them and their friends at Camp Henderson.

“I wonder whether the wireless station at Camp Henderson uses the same call they did when I was with them,” said Eric.

“What were their calling letters or signals?” inquired Andree.

“New York always used the letters, HN, in calling Camp Henderson, and we always used NZ for calling New York, and CM for calling Camp Hanscombe.”

“Of course, you will call Camp Henderson first?” asked Andree.

“Yes,” said Eric, “so here goes,” and with that he began sending wireless signals in the Morse characters, HN, HN, HN, HN, etc., for a few minutes.

At first they were afraid that something was wrong with their apparatus, since they received no reply. Suddenly, however, a message came:

“Who do you want?”

“I want Camp Henderson,” Eric replied.

“Who are you?” came a message.

“From what point are you calling?”

“I am Eric Hanscombe, and am calling from Kransen Island.”

There then came almost instantly the following message:

“This is not Camp Henderson. It is the wireless station on Hanscombe Island. Is anyone with you?”

“Yes, Andree Kransen.”

“Are you both well?” came the message.

“We are in excellent health.” Eric now attempted to send something else when suddenly the station on Hanscombe Island broke in on him with the following despatch:

“Thank God, you are both alive. I have reached Hanscombe Island in the dirigible balloon in a search for you. Wire me particulars of all that has happened you.”

(Signed) KRANSEN.

The two boys said nothing, but looked at each other in a manner that showed how greatly they were affected. Andree merely grasped Eric's left hand and pressed it to indicate something of what he felt, but did not say anything, so as not to prevent him from answering.

Eric at once sent the following despatch:

"Tell me first, is uncle Horace well, and are you all in good health?"

"Yes, we are well," was the reply, "but wire me particulars concerning yourselves."

Eric then sent the following message:

"Andree and I were taken prisoners by Willson and his Eskimos. They planned to kill us, but we escaped with our dogs in the balloon at the new station. Everything right until we reached lat. 88° N., when the balloon began leaking badly. The ocean below contained but a small covering of ice. Everything was thrown overboard, even our basket and anchor, but not until our stores were attached to some of the ring-buoys, and boards of the basket of the balloon, so as to make them float when thrown into the water. Obligated to leave the balloon when

about a mile distant from an island in lat. $88^{\circ} 20'$ N. We reached this island by swimming, aided by our dogs. Called the island, Balloon Island. All the goods thrown overboard were washed up on Balloon Island. Determined to leave Balloon Island for Kransen Island. Reached the latter place safely on a cake of ice with all our stores. Are very comfortable here, and in excellent health.

“Have much information concerning Kransen Island and its products. Please wire instructions.

(Signed) ERIC.”

As related in the preceding chapter, Kransen, with three companions, Dr. Hanscombe, Jannsen, the mechanician, and Capt. Jones, had left Camp Henderson in the dirigible balloon, and had safely reached Hanscombe Island. They landed, and after properly securing the balloon spent some time in receiving reports from Dr. Stone as to the work accomplished in studying the products of the island, especially its animal products. After mastering these reports, Kransen, with his companions, had gone to the wireless station in order to send descrip-

tions of the same to New York as news for Mr. Henderson's papers. While endeavoring to get the New York City wireless station, they received the despatch that Eric had been sending from Kransen Island; i. e., the signals, HN, HN, HN, HN, etc.

"There is someone calling Camp Henderson," exclaimed the operator. "I wonder who it is? It must, however, be someone who has not had any word from Camp Henderson for a long while."

"How do you make that out?" asked Kransen in an excited tone.

"Because he is using HN for the calling signals. These letters have not been used for sometime, since we changed them for the letters, GH. This change was made some three months after the disappearance of the boys."

"Ask them what they want," exclaimed Kransen.

Then the reply came:

“I want Camp Henderson.”

It was evident to all in the room that the electrician receiving the despatch was greatly excited. Indeed, his hand was trembling so that he could hardly attend properly to his work.

“What is the matter?” inquired Kransen, seeing his agitation.

“I may be wrong, Commander Kransen,” was the reply, “but I think I recognize from the manner in which it was sent, that it is Mr. Eric who is talking with us.”

It may surprise those who are unfamiliar with telegraphy that a claim could be made by an operator that he recognized, from the peculiar manner of sending the signals, the one calling him, but it is true to a certain extent, that every operator with Morse characters acquires a peculiar manner of sending his despatches, so that it is not infrequently the case that an operator can be distinguished by his method of sending, just

as one can be recognized by the peculiarities of the voice.

The gentlemen present could hardly control themselves when Kransen said:

“Ask them who they are, and from what point they are sending.”

When the answer came:

“I am Eric Hanscombe, and am calling from Kransen Island,” there was a shout of joy from all those present.

“Thank God,” said both Kransen and Hanscombe. “Our dear boys are living.”

“Of course, they’re living,” said Capt. Jones, in an exulting tone. “Didn’t I tell you they would turn up all right? They are too tarnation cute to be queered easily. But ain’t I happy to hear the good news?” he continued. And then when asked to wire particulars concerning all that had happened to them, they received Eric’s concise despatch, Capt. Jones turned to his companions and said:

“Look at that. They escaped in the balloon, reached Kransen Island in safety. Think how they have taken care of themselves. What do you think of our boys, Jannsen?” he said, turning to the chief mechanic.

“What do I think of them,” answered that gentleman. “What can I think of them; what can anyone think of them? They are boys in a thousand. Taken prisoners by that rascal, Willson, and the Eskimos, they escape in the balloon and then what happened? Any ordinary boys would have been drowned, but not our boys. They hang on to the balloon, and after having made up their goods into parcels, that would float when thrown in the water below them, they are thrown into the water about a mile from a strange island. Were they drowned? Not much. Only a trifle of a swim, a mile or so in icy waters. They reached the island in safety, followed in due

course of time by the goods that had floated after them."

"But what I can't understand," said Capt. Jones, "is how they got their latitude."

"There was a good sextant in the balloon," remarked Kransen. "You must not forget that you taught both the boys how to compute their latitude."

"That's true," said Jones, "and they are tarnation cute."

"But let me finish," continued Jannsen. "In some way or other, I don't care how, they find their latitude. Knowing they could not be far from Kransen Island, perhaps seeing it dimly outlined in the distance, they determine to get there. What did they do? Wait for the first steamboat or ship? None around; and none to be expected. But it's a simple matter to brainy boys. Put all the goods on a floating cake of ice, and all aboard for Kransen Island. They

were not foolhardy boys, so I suppose they saw plenty of other cakes of ice floating in that direction. They reached the island, and there they are. Now, Capt. Jones," he said, when he had finished talking about the boys; "do you still ask me what I think about our boys?"

"Waal," replied Jones, "I guess I won't ask you anything else. I calculate I know what you think about *them*."

Dr. Hanscombe had said little during this conversation. He was too happy to know that both the boys were safe and well. He merely said:

"All that is true, and the despatch says they are comfortable, and are provided with plenty of food, and especially that they have found out many things about Kransen Island and its products. Our dear boys have endeavored to carry out the plans of our expedition just as if they were still with us. Notice, too, how the despatch ends,

‘Please wire instructions.’ They are as cool about it as if they had been absent for only a few days. What instructions will you send them?’ he asked, turning to Kransen.

Kransen sent the following despatch:

“We will leave Hanscombe Island in the dirigible balloon inside of twelve hours, as soon as we take on some stores here for Kransen Island. You may look for us shortly unless something unexpected prevents.”

Both boys were greatly excited when they had so unexpectedly been able to communicate with their friends at Hanscombe Island instead of at Camp Henderson.

“What a wonderful invention wireless telegraphy is! Here in less than an hour we have been able to communicate with our friends and the rescuing party. What grateful boys we should be for having escaped so many dangers, and we now in a short time shall see our dear uncles.”

While Andree had been talking another

call came on the receiving instrument. It was as follows:

“Were you calling Camp Henderson?”

“Yes,” replied Eric, “are you Camp Henderson?”

“Yes, who are you and where are you?” came the next message.

“Eric Hanscombe on Kransen Island,” replied Eric.

“Is Andree with you and are you both well?” came the inquiry.

“Yes, Andree Kransen is with me. We are both in splendid health. We have just been talking with Hanscombe Island, with Commander Kransen and his party, who have safely reached that point in the dirigible balloon.”

The reply came:

“Wait a moment. I wish to tell the good news to the people of Camp Henderson.” And shortly afterwards the following despatch was received:

“Camp Henderson sends warmest congratulations.
Great joy here to be assured that you are both alive. .

“(Signed) CHARLES THOMAS,
“Chief Electrician and Acting Com.”

CHAPTER XIX

ARRIVAL OF THE DIRIGIBLE BALLOON AT KRANSEN ISLAND

AS soon as the boys had learned the dirigible balloon might be expected shortly on Kransen Island, the time seemed to pass with unusual slowness. They sat up late that night on the bench they had placed in front of their cave, at a point where they could get a good view of the ocean to the south. They occasionally looked through the glass at Balloon Island, of which they could obtain a faint view, since the air was then remarkably clear. At most times, however, as they had discovered on reaching Kransen Island the presence of but a faint haze in the atmosphere made the island practically invisible.

They talked about the various things that had happened to them, but there was one subject which they most frequently discussed. This subject was expressed by Eric as follows:

“Andree,” said Eric, “I can hardly wait, the time seems to pass so slowly.”

“Yes,” said Andree, “that’s the way it seems to me. The despatch says they are in good health, does it not?” inquired Andree, anxiously.

“Yes,” replied Eric, “the despatch said, ‘We are well,’ but that doesn’t tell us nearly all that we want to know.”

The boys continued sitting up for several hours looking wistfully across the water in the direction the dirigible balloon had reached the island on the occasion of their former visit to it. At last they went to bed, but even then they lay awake for several hours still talking over the great things that had happened to them and especially of the

expected coming of their friends in the dirigible balloon.

They got up early the next morning, and after a hurried breakfast they again went to the shore and looked across its waters.

At last Eric said in a laughing tone to Andree:

“Andree, we both know that there is no chance whatever of the balloon’s reaching here for a considerable time. Suppose we go to our cave and fix everything in good order to receive our friends. We will then go to the wireless station on Mt. Kransen and talk with Hanscombe Island and Camp Henderson.”

As soon as they got to some definite work the time passed much more rapidly. They learned from Hanscombe Island, that Kransen, Hanscombe, Jannsen, and Jones had left the island the afternoon before, that the balloon had been favored with a wind directly toward the north.

Shortly afterwards Eric was surprised to receive a congratulatory despatch from New York City. Gideon Thomas, chief electrician, had sent a despatch to Mr. Henderson, the financial backer of the expedition, telling him of the safety of the boys. It was as follows:

“Congratulations. The news of your safety is the best news I have received for a long time from the far north.

(Signed) GEORGE I. HENDERSON.”

As the time was now drawing near when they could expect to see the balloon coming, they descended the slopes of Mt. Kransen, and went to the coast near the lava caves. At last the welcome sight of a balloon was dimly seen on the southern horizon.

“Andree,” shouted Eric, “there is the dirigible balloon,” pointing in the direction in which he had been looking through powerful field glasses.

“Yes,” said Andree, as soon as he had

focused the glasses on this point. "It will not be long now before it reaches the island."

The balloon drew nearer and nearer, and at last was immediately overhead. The anchor was thrown out. The balloon ceased to move forward, and descended. In a few moments, the boys were clasped in the arms of their uncles.

"Thank God," said both of the men as they pressed each of the boys to their breasts. "Let us thank our Heavenly Father that He has again protected you." And then kneeling down on the shore, they returned thanks to God for all the mercies He had sent them.

Capt. Jones was especially pleased to see the boys again.

"Boys," he said, "you'd be surprised to learn how much you've been missed at our Camp. We thought we knew how much we liked you, but when you disappeared, we

found that we had liked you much better than we believed. So this," he said, looking around, "is the Land of the North Pole? At last I am on that little piece of ground so many have tried to reach. Come and show me the place, that which has so bothered the world to find."

On reaching the point where they had located the North Pole, Jones stood before the American flag, that, it will be remembered, was planted at this point. Removing his hat, he saluted the flag that was still proudly waving from a pole at the exact northern axis of the earth.

"I don't mind," said Jannsen, "if I turn in again as *chêf* or cook. If you have any stores with you at the cave, I will try to get up a grand dinner in order to celebrate this glad day."

"Come to the cave," said the boys, "we have plenty of good things there."

"All right," said Jannsen, "but I think I

will bring some of the best things we have in the balloon."

When the party reached the cave they were surprised to see the many improvements the boys had made during their sojourn on the island.

"Hello, boys," said Kransen, as he saw the substantial stone wall with which the boys had completely shut up the entrance to the cave. "I see you've turned masons." Then carefully examining the work, "this is well done. Where did you get the mortar?"

"We made it under Andree's instructions. The wood of the door came from the baskets of the two balloons."

"By the way, boys," inquired Jannsen, "what became of the balloon we left here in the cave?"

The boys explained the accident that had occurred, how the balloon had been destroyed by fire and then told them of the

telegraph station they had built on top of Mt. Kransen.

“Mt. Kransen,” said Dr. Hanscombe, laughing, “so you’ve been mapping out the island and naming the different parts, have you? Let us see your map,” he continued.

The men made a careful examination of the map, when Kransen, turning to the boys, said:

“We will let the names stand as you have given them. Now let us see your food supplies,” he continued.

The stores of food products, especially the dried meats and smoked salmon, pleased them all very much, particularly Kransen.

When the boys spoke about the stone telegraph station they had built on Mt. Kransen, they concluded to go there and examine the place, as well as to take the opportunity of sending a wireless despatch to Camp Henderson and Hanscombe Island.

“I think I will go with you,” said Jann-

sen. "There will be plenty of time to attend to the cooking afterwards."

The skill of the boys as masons was much admired by their visitors, especially the ingenuity they had employed in making the most of their limited quantity of wood. Capt. Jones was particularly pleased at the different kinds of work the boys were capable of doing.

"It seems," he said, laughing, "you chaps can turn your hands to most anything. Wireless telegraphy, carpentering, limeburning, masonry, or any other thing."

The party remained some seven days on Kransen Island, carefully examining the important discoveries the boys had made as regards its animal and mineral products. Kransen was especially pleased on learning of the great extent of the bed of lignite coal, the limits of which were carefully examined, so as to enter claims on the same in the name of Mr. Henderson. The deposit of

iron ore and the beds of limestone in the neighborhood of the coal beds, especially interested him.

“We have here,” he remarked, “the means of making excellent iron and steel, products of the greatest importance in the commercial development of this part of the world, which is devoid of wood as a building material. Here also,” he said, as he stooped down to examine a deposit of shale, “is a material, which, when employed in connection with lime, will yield hydraulic or Portland cement, a building material, as valuable, if, indeed, not more valuable in this part of the world than iron or steel.”

The discovery of the bed of rock salt pleased him almost as much as did the other mineral deposits, since he saw that this material, when taken in connection with the immense schools of salmon or other fish that visited this part of the coast, would permit them to cure the fish and thus lay up im-

mense food supplies for the winter, as well, when the commercial development of the island was completed, to ship such products to the different parts of the world where the best markets could be obtained for them.

It may be mentioned here that besides the warm welcome Kransen and his party had received from the boys, the Newfoundland dogs had not failed to show by all means in their power that they recognized the visitors from Camp Henderson and were glad to see them.

“Look,” said Capt. Jones, “the critters are almost crazy to see us again. How are you, doggies,” he said, “do you want to go back again to Camp Henderson? Look,” he said, “see how they shake their tails and almost say:

“ ‘We want to go back again all right, if our masters go with us.’ ”

When everything had been left on the island in such a condition that it would be

found safe on their return, they left the island in the dirigible balloon.

“We will, of course, make a short visit to Balloon Island,” said Kransen.

The balloon was soon on the eastern slope of the mountain near the lava cave which formed Kransen House.

“Has this island been formally taken possession of in the name of the United States of America?” inquired Kransen.

“Yes, Uncle,” said Andree, “that was almost the first thing that Eric did on reaching the island.”

The different points of interest were carefully examined by all the party with the greatest enthusiasm.

After spending a few days on the island they again left in the dirigible balloon for Hanscombe Island, which they reached in due time. Dr. Stone and the rest of the people on the island welcomed the boys and congratulated them on their escapes from

all the dangers through which they had passed.

Kransen was especially pleased to receive a despatch from Camp Henderson notifying him of the arrival of the "Rescue" with additional supplies from the east. The "Rescue" had been sent at the request of Kransen, who notified Henderson of the necessity of remaining at least another year in order to carry out his plans for commercially developing that part of the world. This despatch also contained the welcome news to the boys that their old friend, Mr. Gideon Brown, the reporter, was on the ship, and intended to remain with the party. The fact that he was there was soon made apparent by another despatch which was received from this irrepressible individual. This despatch which was directed to Andree and Eric, was as follows:

"Delighted to hear of your safety. I shall expect you as Assistant Reporters of the Henderson-Kransen

North Polar Expedition, to prepare for me full reports of your experiences since your disappearance from Camp Henderson. It will all make splendid news for the newspapers. The book on the Henderson-Kransen North Polar Expedition has been a grand success. Mr. Henderson has again sent me to Camp Henderson to prepare material for an additional volume. He authorizes me to offer you a salary of \$2,000 each as Assistant Reporters of the Expedition."

That man is a great enthusiast," said Dr. Hanscombe, laughing.

"He is indeed," was the reply.

Nothing of note occurred and in due process of time the party in the balloon could distinctly see the mastheads and their antennæ at the wireless telegraphic station on the headland at Camp Henderson.

CHAPTER XXI

PUNISHMENT OF DOCTOR WILLSON AND THE HOSTILE ESKIMOS. CONCLUSION.

THE officers and crew of the "Explorer," as well as those of the "Rescue," with the exception of a few left on guard at the vessels, turned out to welcome the arrival of the dirigible balloon, and especially Andree and Eric. There were, therefore, many hearty welcomes given both to the boys and their dogs.

It was very evident from the manner in which everyone, both officers and men, greeted the boys, that, as Capt. Jones had declared the people at Camp Henderson were the more attached to them than they had believed. Everyone insisted on shaking hands with the boys. The character of

their greeting varied, of course, with the individual. That of most of the officers was sincere but warm. Hjalmar, who, perhaps, was more attached to the boys than any of the non-commissioned officers, said:

“This is a great day, boys, for all of us at Camp Henderson. We are all so glad to see you again.”

Cæsar, the black cook, after shaking the hands of the boys, whispered as he was leaving them:

“Come to de galley soon. I’s something dat tastes good.”

Joe, the Eskimo, came up to the boys grinning, and very proud of the little English he had learned, made a short address to them in that tongue, which, after great pains, he had committed to memory:

“Joe glad to see you back again. Joe ’fraid bad Eskimos kill you, so went far away looking for you and the dogs. Joe very glad you here.”

The boys shaking Joe's hand, told him in Eskimo that they had heard of the work he had done in his search during the winter, and assured him that they would not forget it.

"Joe glad to see the Newfoundland dogs again," he added.

It was evident the dogs were also glad to see him, for they had become very much attached to Joe, and appeared never to forget that he had originally been their master. But Joe was especially pleased when Eric brought one of Snowflake's puppies, and said:

"This is a present from Andree and myself, Joe. This dog is yours. We are sure you will take good care of it."

Greatly tickled at having such a high bred dog given to him, Joe said:

"Joe call him Come-Back, because Joe he got it when you come here again."

Joe was evidently very proud of his pro-



Blindly followed the dogs

ficiency in the English language, that thus permitted him to make up an English name for his dog, for he said to the boys with a broad grin:

“Joe speak English so well now that he calls dog Come-Back.”

But, perhaps, there was no heartier welcome for the boys than that of Gideon Brown the reporter.

“Boys,” he said, repeatedly shaking their hands, “I can’t tell you how glad I am to see you again. When a wireless message was received in New York reporting you as probably dead, I felt I had lost two very dear friends. But when the tidings came that you had been discovered in good health on Kransen Island, I was very glad, and was pleased that I was on the “Rescue” that was then steaming rapidly toward the north, for the “Rescue” had left New York City when the despatch was received by its wireless apparatus.”

"We are very glad to see you again, Mr. Brown," said both boys.

"So the book was successful?" inquired Andree.

"Very successful. So much so, indeed, that Mr. Henderson made me a very flattering offer to return to Camp Henderson with the "Rescue" and get together as quickly as possible, the materials for an additional volume. He especially desires that your services will continue as Assistant Reporters, and authorized me, should you be willing to serve for another year, to offer you a yearly salary of \$2,000 apiece, to date from Jan. 1st of this year. You will accept this offer, won't you?" he inquired anxiously.

"Certainly," said Eric, "I will be pleased to accept the position and the salary with it."

"And I too," replied Andree, laughing.

"Do you think you can remember correctly most all the experiences and adventures

you have had while away from Camp Henderson?" inquired Mr. Brown.

"Mr. Brown," said Eric, laughing, "you are forgetting who brought us up as assistant reporters. Let me whisper something in your ear. When the balloon had lost so much of its gas that we were obliged to throw practically everything overboard, even including our rifles, revolvers, and chronometers, what do you think we were careful to keep?"

"I am sure I don't know," was the reply. "Your pocketbooks?"

"No," said Eric, "but our notebooks and lead pencils, and what is more, we used them while in the balloon making careful notes occasionally anything of interest which we saw."

"Now that is what I call splendid reporting," said Mr. Brown enthusiastically. "You wouldn't find one reporter among a thousand who would do that."

Capt. Northrop, commander of the "Rescue," said:

"I am glad to see you again, my lads. I regret very much that my people on the ship did not watch that rascally fellow, Willson, better. Had they not permitted him to escape you would have been saved many dangers."

"Eric," said Dr. Shallcross, who had been appointed chief physician of the "Rescue" in place of Dr. Willson, "have you been making any further uses of fluorescene? That is a magnificent test of Dr. Icard's. On our return to New York City, I read a paper before one of our medical societies describing the use to which we had put it in the case of Commander Kransen. The paper attracted considerable attention. Of course, I gave you the credit for the suggestion. This paper, together with the discussion that followed it, was published in full in all the medical journals. All of Hender-

son's newspapers also published it. Believing that you would be glad to see them I have clippings from all of these papers, and will show them to you sometime when you are less busy than now."

On the evening of their return, there was a grand entertainment in the large assembly room, that, as before mentioned, had been built over the living and sleeping rooms of the headquarters. This room was not only large enough to hold all the officers and crews of both the "Explorer" and the "Rescue," but also quite a number of the Eskimos, who had been employed as workmen by Kransen. There had also been invited many of the visiting Eskimos, since, of course, the rumor had been spread around the country for hundreds of miles of the many wonderful things that could be seen in the encampment of the great white men from the east. The officers observed, however, with some surprise that very few of

the male Eskimos, whom they had always regarded as their friends, were present at the entertainment.

There were great goings on at the entertainment. The programme, as usual, while arranged to meet a great variety of tastes, was especially of such a character as would interest the simple-minded sailors, or the Eskimos, for Commander Kransen knew how necessary it was in order to preserve the health of his men to keep them busy and interested, and did all in his power to make their sojourn at the north, not only comfortable, but even pleasant.

It had been the desire of the crew of the "Explorer" to get up something very unusual at that entertainment, which should express their great delight at having both the boys with them again. Consequently, after a most tremendous mental effort, they conceived the idea of preparing what is known as a Round Robin.

Since it is possible that many of my readers may not be aware of what is meant by a Round Robin, it may be said for their information that it is a name given to a form of communication sometimes employed by sailors when they wish to send in a petition, remonstrance, or other communication to the captain, so that it shall not be known who signed first. To do this the communication is placed inside a circle, and the signatures written on the outside of the circle, in the direction of its radii.

Just why the sailors were unwilling to permit it to become known who signed the very flattering communication they had prepared, we will not pretend to say. Of course, none of them would be ashamed to let it become known that he had headed such a list. They did this, however, as a matter of custom.

When the Round Robin had been handed with great ceremony to Andree and Eric,

the speaker with the natural hesitation that Jack generally shows when speaking in public, said:

“Me and my messmates ask you to take this as showing what our feelings are. It has been wrote in poetry, which is hoped will be pleasant. Nobody helped us make this up. It was all done by our crew.”

When the boys had thanked the sailors for their kindness, someone in the crew of the “Explorer,” evidently proud of this great literary production, cried to Eric:

“Please read it aloud, Mr. Eric.”

Eric then read the following astounding literary production:

“See all names here,
Not one doth lack.
We’re awful glad
To see you back.”

Then followed the names of the entire crews of the “Explorer” and the “Rescue,”

written, as before remarked, along the radii of the circle.

This tremendous literary production produced a profound impression on all the sailors. The crews of both vessels vigorously applauded it. One of the crew of the "Rescue" was overheard to say to the man next to him:

"I say, matie, that's wonderful pretty. We fellows of the sea can write poetry all right, can't we?"

"Sure," was the reply, "I say, Jack," he continued, "I'd like to see that in print. Wouldn't it look great?"

Besides music, both instrumental and vocal, and various things that would appeal to the more simple-minded people in the audience, there was something that interested them all, and this was speeches made by the different officers, especially by Commander Kransen and Dr. Hanscombe.

During Commander Kransen's speech, in

which he pointed out the objects of the Henderson-Kransen North Polar Expedition, he called attention to the liberality of Mr. Henderson in agreeing to divide among the officers and men of the "Explorer's" crew, according to their salaries or wages, a ten per cent interest on all companies founded on mineral lands discovered by any member of the Expedition. He took occasion to refer to the great value of the large bed of lignite coal that had been traced by the boys on Kransen Island, as probably being a continuation of the coal bed already located. He referred to the valuable deposits of iron ore and limestone, pointing out how easily metallic iron could be obtained from them. He told them about the valuable salt deposit that had been discovered, remarking that these discoveries of the boys could not in his opinion fail to make a very handsome increase in the amount of money due them by the Expedition.

Of course, this statement by Kransen created a great enthusiasm among the men, who insisted on speeches from the boys.

Both Andree and Eric made short speeches saying how much pleased they were for the hearty welcome they had all given them, and how glad they were to be back again safely at Camp Henderson.

Eric had hardly finished talking when a great noise, was heard outside the assembly room, apparently coming from the harbor, where the "Explorer" and the "Rescue" were lying at anchor. These noises were accompanied by the firing of guns and revolvers, as well as by the angry shouts of men as if engaged in a battle. The entire audience poured out of the assembly room. Led by Capt. Jones and Commander Kransen they ran rapidly toward the harbor, where they found that the brief battle was already over, with the victory on the side of the friendly Eskimos,

who had failed to attend the entertainment.

On the arrival of Kransen and his party they were informed by the friendly Eskimos that understanding an effort would be made while the parties were at the entertainment to set fire to the two vessels, they had quietly kept a close watch. It appeared that Willson had been gradually losing his influence with his Eskimo followers, who were now limited to ten men. He had hung around Camp Henderson with these men entirely unknown to Kransen, but carefully watched by the friendly Eskimos. On learning that there would be an entertainment in the great hall Willson had planned to destroy the two ships by fire, for he did not think that watches would be left on them. It appeared he was very angry when he learned that the two boys, especially Eric, had returned safely to the camp. He persuaded his men that it would be easy to set fire to the two vessels. That

this would, of course, bring all the people in the entertainment to the vessels, during which they could loot the houses and afterwards set them on fire, and that in this way they would be able to avenge themselves on the white men.

Willson had hoped that this plan would so appeal to the Eskimos, by reason of its simplicity, that many of them would join him. But when they heard of the plan the Eskimos were very angry, since they had nearly all become greatly attached to the great white chief from the east. They determined to say nothing about it at present, but to hide themselves and watch to see if their men would be so wicked as to set fire to the vessels. When Willson and his men actually made this attempt they promptly set on them with their rifles and spears, and killed all of them except Willson.

When, therefore, Jones, Kransen, and the rescuing party reached a point near the har-

bor, they found the vessels safe, the fight over, and all the assaulting party killed except the one before referred to. One of the friendly Eskimos, coming to Kransen, said:

“All dead except man over there.”

“Let’s see if anything can be done for him,” he said, approaching the wounded man.

Dr. Willson, who was still conscious, looking up, said:

“What do you want here? Can’t you let me die in peace?”

“I don’t see how you can expect to die in peace,” said Capt. Jones, “after attempting such a villainous trick as trying to set fire to our vessels.”

Hanscombe, who now came up to the dying man accompanied by the two boys, knelt down and feeling his pulse, said:

“You have only a short time to live, can I do anything for you?”

“Only a short time to live,” said Willson, looking at Eric with a wicked look, and then drawing a revolver, that he had managed to conceal, he said to Eric:

“If I have to die, you will go along with me,” aiming the revolver at Eric’s head, but instantly, Joe, the Eskimo, who had just reached the place, hurled his lance at the man, and drove it through his heart, killing him before he could pull the trigger of his revolver.

“Bad man,” said Joe, grinning. “Trying to kill Mr. Eric, but Joe too quick with spear.”

Eric thanked Joe for the prompt help he had given him. It was noticed, however, by those who looked on, that Eric had already drawn his revolver and was about ready to shoot when Joe’s spear passed through the heart of the miscreant Doctor.

The only remark that Jones made after Joe had killed Willson was:

“There dies a liar and a thief.”

“Here at last is the end of our troubles,” said Kransen. “I will report to the United States authorities at New York City all the circumstances attending the death of this miserable man.”

They made no attempt to renew the entertainment that had been broken up so unexpectedly, not only because it had been so near its completion, but because there were so many other things to discuss.

Capt. Northrop remained at Camp Henderson with the “Rescue” as long as he safely could, and yet be able to return to New York before the setting in of the long winter. Word was received from New York that Dr. Biddle, with whom Dr. Hanscombe had left his medical practice was carrying it on satisfactorily. Hanscombe, therefore, decided to remain with the Henderson-Kransen North Polar Expedition for an additional year, and agreed that Eric

should remain with him. Kransen did not hesitate to permit Andree to do the same thing. He knew that during the next year the boys would be a great help to him in carrying out Mr. Henderson's plans for the commercial development of the Arctic regions of the far north. Both men were only too glad to have the aid as well as the companionship of the boys, who had already been of such great help in the work of the Expedition.

Gideon Brown, with the aid of the two young assistant reporters, succeeded in getting together another book describing the work done by the Henderson-Kransen North Polar Expedition. This book contained among other things, the experiences of the boys during their recent prolonged absence from Camp Henderson.

During the additional year the Expedition remained in the far North, there were many exciting and interesting experiences and a

great amount of information was obtained concerning the best manner of commercially developing these distant regions and may be described in three additional volumes to be known as the Polar Series.

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